

# University News

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## **My Early Years in the UGC**

M. S. SINGH

## **Assam University — Past, Present, Future**

S. K. SINGH

## **Roby Kidd and Indo-Canadian Cooperation in Adult Education**

S. K. SINGH

## **Educational Administration in Karnataka**

C. K. SINGH

## **The New Economic Policy — Convocation Address**

**MOOT COURT COMPETITION**

**RANBAXY RESEARCH AWARDS**

**TRAINING COURSE ON WOMEN'S EDUCATION**

**UNESCO CHAIR AT SWAMINATHAN FOUNDATION**



**Association of Indian Universities**

# G.B. PANT UNIVERSITY OF AGRICULTURE & TECHNOLOGY

## PANTNAGAR-263 145

### ADMISSION NOTICE : 1996-97

A competitive Entrance Examination for admission to the first year of the following programmes will be held on Sunday, the 9th June, 1996 from 10 a.m. to 1.00 p.m. at different cities and for M.Tech. Cold Region Science & Engineering it will be held from 3.00 p.m. to 6.00 p.m. at Pantnagar Centre only.

- Under-graduate Programmes:** Bachelors of Fisheries Sc., B.Sc. Ag. & A.H., B.Sc. (Forestry), B.Sc. (Home Science) and B.V.Sc. & A.H.

**Eligibility:-** Pass in Intermediate Science/Agriculture or equivalent. Candidates appearing in the Intermediate Science/Agriculture or equivalent examination can also apply.

**Age:-** Maximum age limit for admission to all Under-graduate programmes is 22 years (25 years for SC/ST categories) and the minimum age limit in case of B.V.Sc. & A.H. Programme is 16½ years as on 30.6.1996.

- Master's Programmes :-** Agril. Chemicals, Agril. Economics, Agril. Engineering (Farm Machinery & Power Engg., Food Biotech Engg., Irrigation & Drainage Engg., Process & Food Engg., Soil & Water Conservation Engg.), Agril. Statistics, Agronomy, Agrometeorology, Animal Breeding, Animal Nutrition, Aquaculture, Biochemistry, Botany, Child Development, Clothing & Textiles, Computer Science, \*Cold Region Science & Engineering, Dairy Husbandry, Design & Production Engg., Development Communication, Electrical Energy Systems, Entomology, Environmental Sciences, Family Resource Management, Fishery Biology, Foods & Nutrition, Food Technology, Genetics & Plant Breeding, Horticulture, Hydraulic Engg., Mathematics, Microbiology, Physics, Plant Pathology, Plant Physiology, Poultry Husbandry, Rural Banking & Agril. Economics, Soil Mechanics & Foundation Engg., Seed Science & Tech., Soil Science, Thermal Science, Vegetable Science, Vety. Anatomy, Vety. Gynaecology & Obstetrics, Vety. Epidemiology & Public Health, Vety. Medicine, Vety. Microbiology & Immunology, Vety. Parasitology, Vety. Pathology, Vety. Pharmacology, Vety. Physiology and Vety. Surgery & Radiology.

**Eligibility:-** 55% marks in Bachelor's degree examination or equivalent except for M.V.Sc. Programme for which candidate should possess 1 Division at B.V.Sc. level. Candidate appearing in the Bachelor's degree or equivalent examination can also apply.

- \* For M.Tech. Cold Region Science & Engg. - M.Sc. Physics/Maths or B.E./B.Tech. (Mech./Civil Engg.) with 1st Division at Master's or Bachelor's level as the case may be with at least 11th Division in lower level Examinations.

- Ph.D. Programmes :-** Agricultural Chemicals, Agril. Economics, Agronomy, Animal Breeding, Animal

Nutrition, Biochemistry, Development Communication, Electrical Engg., Entomology, Environmental Science, Farm Machinery & Power Engg., Genetics & Plant Breeding, Food Technology, Horticulture, Human Nutrition, Hydraulic Engg., Irrigation & Drainage Engg., Mechanical Engg., Mathematics, Microbiology, Molecular Biology & Biotechnology, Physics, Plant Pathology, Plant Physiology, Process & Food Engg., Seed Science & Technology, Soil Science, Soil & Water Conservation Engg., Structural Engg., Vegetable Science, Vety. Epidemiology & Public Health, Vety. Gynaecology & Obstetrics, Vety. Medicine, Vety. Microbiology & Immunology, Vety. Pathology, Vety. Pharmacology, Vety. Physiology, Vety. Surgery & Radiology.

**Eligibility :-** Master's Degree in the relevant areas in First Division or 4 000 O.G.P.A. out of 5 000 with at least 55% marks or equivalent O.G.P.A. in Bachelor's degree. Candidate appearing in the Master's Degree or equivalent examination can also apply.

Detailed prospectus and application form can be obtained by sending an account payee bank draft for Rs. 25.00 for Undergraduate programmes and Rs. 50.00 for Master's and Ph.D. programmes in favour of "P.E.E.C.R.F. ACCOUNT G.B. PANT UNIVERSITY OF AGRICULTURE & TECHNOLOGY, PANTNAGAR" on State Bank of India, Pantnagar (Branch Code 1133) or UCO Bank, Pantnagar Branch (Branch Code 678) with a self-addressed envelope of 30 x 25 cm size bearing postage stamp of Rs. 6.00 or by depositing Cash at the Counter from Admission Cell during working hours. Cheques/Money Orders/Postal Orders will not be accepted.

Application forms for sale will be available from 20.2.1996

#### Last Date :

Receipt of request for Application Form (BY POST) 10.4.1996

Application Form available from counter in Admission Cell 20.4.1996

Receipt of Complete Application Form with fee of Rs. 250/- (for Under Graduate) and Rs. 350/- (for Post Graduate) 10.4.1996

Receipt of Complete Application Form with fee of Rs. 350/- (for Under Graduate) and Rs. 450/- (for Post Graduate) 20.4.1996

**Note :** The candidates seeking admission to M.Tech. Cold Region Science & Engineering Programme are required to fill separate application form along with application fee of Rs. 350/- for obtaining application form please mention the name of programme "Cold Region Science & Engineering" on the envelope.

**Registrar & Coordinator (Admission)**



Dr. J.N. Kaul (Education) was at that time on deputation to NCERT as Principal of a Regional College of Education. After some time he came back and again a few years later went as a Visiting Fellow to the Indian Institute of Advanced Study, Shimla. As a result of his research there came out a critical book entitled "Higher Education in India : 1951-1971 Two Decades of Planned Drift".

I was posted in the Science & Technology Division where Dr. V.S. Patankar, Dr. D. Shankarnarayan, Dr. M.L. Mehta and myself formed a team. I was given the work of technical education because of my background. The UGC looked after the development of technical education in the university departments and the university maintained institutions. For expert advice the UGC referred proposals to the AICTE in the Ministry of Education. The AICTE got the proposals examined and then sent their recommendations which were implemented by the UGC. At that time the country needed a lot of manpower in the technical field and a special scheme named 'Ghosh-Chandrakant Scheme' had been launched for the development of technical education. We had to visit universities and help them in the implementation of the scheme. My first visit was to the Osmania University in May 1963. Before going, I met the Secretary UGC and got his valuable guidance, one of which was the most valuable for administration, "Don't make any commitment".

In 1963 the UGC launched the scheme of Centres of Advanced Study for raising research standards and encouraging the pursuit of excellence in specific fields. A number of university departments were selected which had evinced potential in research and teaching, on the basis of quality and extent of work already done by them, their reputation, contribution to research, and their potentiality for further development. It was proposed to provide substantial financial assistance to enable the Centres to attain international standards in specific areas of science, technology, humanities and social sciences. On the advice of a committee, under the Chairmanship of Professor A.R. Wadia, consisting of eminent educationists and scientists, 26 university departments were selected in the first instance, for development as Centres of Advanced Study. They were to provide adequate facilities for advanced study and research and function on an all-India basis, and wherever practicable, in close collaboration with the national laboratories and other similar institutions. In addition to a nucleus of permanent staff, they were to have a substantial of outstanding workers on deputation from other uni-

versities and visiting scholars from abroad. Each such department or centre was to be a part of the university where it was located. These were no doubt, the best departments and jewels in the crown of the university system. The list of the Centres of Advanced Study in 1963 is given as Appendix.

In addition to the grants provided by the UGC, assistance amounting to \$ 6,00,000 under the United Nations Expanded Programme of Technical Assistance was earmarked for some of the centres in science subjects for the purchase of specialised equipment, for the training of Indian scholars in the USSR and obtaining the services of Soviet scientists for short periods. Accordingly, a number of eminent scientists from the USSR visited some of the centres and participated in their programmes in the fields of crystallography, microbiology, natural compound chemistry, nuclear theory, geological prospecting etc. A number of teachers from our universities were sent to the USSR for training. Many a scientific equipment too, arrived from the USSR.

Science was not alone to receive foreign assistance. The Asia Foundation, USA agreed to provide assistance for meeting the foreign exchange needs of the Centres in social sciences. The aid was earmarked for the Centres of Advanced Study in sociology, linguistics, history, political science, psychology and law. Apart from the USSR and the USA the Centres received assistance from other sources as well. The CAS in Radiophysics and Electronics (Calcutta University) received aid under the Colombo Plan. Sir Lawrence Bragg, Director, The Royal Institution, London alongwith a number of scientists from abroad attended the seminar conducted by the Centre of Advanced Study in Physics at the University of Madras. Professor JEG Raymont, Southampton University, U.K. worked at the Marine Biology Centre at Annamalai University. Professor C. Velyachich, Zagreb University, Yugoslavia was associated with the Centre for Philosophy at the Visva-Bharati, Santiniketan. A number of teachers, scholars and research workers from the USA, UK, Japan, Belgium and other countries worked for short periods at the two centres for linguistics in the Poona and Annamalai Universities.

After Dr. Patankar retired from UGC, the work in the UGC for the Centres of Advanced Study in Science was headed by Dr. Shankarnarayan. Similarly, on the retirement of Dr. Bhattacharya, the CAS in humanities and social sciences came in the hands of Dr. Kaul. The scheme made rapid strides

under their leadership. A thorough review was undertaken after a period of ten years i.e. in 1973 as a result of which several centres were derecognised and some revisions were made in the scheme.

The UNESCO provided the services of Dr. A.N. Kholodolin of the Ship Building Institute, Leningrad as adviser to the UGC for the implementation of the project for UNESCO assistance to the CAS. He occupied a room in the UGC. The UGC office had the benefit of another expert from abroad. He was Dr. Hans Simon of the USA, an expert on examination reform. As a result of his advice Dr. S.C. Goel went to Princeton, USA to get training in a workshop on Scholastic Aptitude Test (SAT), etc. Later, Dr. Goel steered the course of examination reform in the university system. When the National Education Testing (NET) was started in 1984, Dr. Goel provided the leadership.

The UGC office was a small one in the sixties. It occupied only three floors of the new building. The remaining two floors were occupied by the Central Scientific & Technical Terminology Commission and the Education Commission (1964-66). Professor Kothari was the Chairman of all the three Commissions. Many eminent scholars from India and abroad used to visit these bodies. Consequently, a great deal of discussions and seminars took place in the UGC building where everyone of us, without distinction, could participate and develop himself. I particularly recollect the discussion with Lord Robbins of Britain who was heading the committee on reforms of education there.

Another programme which assumed big proportions in those days was that of summer schools and seminars which provided stimulus to the participants to improve their professional competence. In the summer of 1963 four summer institutes for secondary school teachers in physics, chemistry, mathematics and biology were organised in collaboration with the USA Agency for International Development and the NCERT. Encouraged by the response, 16 summer institutes for school teachers were organised during the summer of 1964. Similarly, 16 summer institutes for university and college teachers of science subjects were organised during 1964. There was great enthusiasm in the UGC on these counts since they were yielding gratifying results. The objectives of this programme were:

- (a) to provide supplementary in-service training to college and university teachers in science subjects,
- (b) to enable the participants to keep abreast of the

latest advances in their respective fields of work,

- (c) to acquaint them with modern concepts and ideas, and
- (d) to provide means and opportunities for discussions and exchange of ideas.

In the UGC the team for the implementation of the programme was led by Dr. R.D. Deshpande. After a few years he left the UGC to join the HABITAT.

It can be seen from the programmes of CAS and Summer Institutes that a great emphasis was laid by the Commission on raising the standards of teaching and research in the country and foreign collaboration was being availed of in a big way. It may be recalled that both in the USA and the USSR teaching of science had undergone a transformation and it was prudent to learn from the experience of these countries. So, experts from these countries came to India under several programmes of the UGC and international agencies.

In addition, the Commission in collaboration with Department of Economic Affairs in the Ministry of Finance and the Ministries of Health and Food & Agriculture selected Indian personnel for training abroad, invited foreign specialists to Indian universities and obtained ancillary equipment. This foreign aid programme went side by side with the Indo-Soviet Cultural Exchange programme and that of Exchange of Scientists between the U.K. and India.

Dr. P.J. Philip on being appointed the Director of an Institute at Hawaii (USA) left the UGC in 1971 after holding the post of Secretary for four years. Shri R.K. Chhabra took over as Secretary, UGC from Dr. Philip in 1971.

It would be interesting to recall some statistics of higher education of that period:

#### 1963-64

Students enrolment	12 lakhs
Percentage of Women	19
No. of universities	61
Institutions deemed to be Universities	9
Number of Colleges	2,111
Staff including Tutors and Demonstrators	66,000
Staff student ratio	18

For the sake of comparison, during 1994-95 the student enrolment was over 61 lakhs. We may dwell upon this growth of higher education and the role of the UGC, later.

**Statement Showing the Grants Allocated to the Centres of  
Advanced Study for the Third Plan-Period**

**(I) SCIENCE**

<i>Subject</i>	<i>Department/University</i>	<i>Total Grants Allocated (in rupees)</i>
<b>Astronomy</b>		
1 Experimental Astronomy	Department of Astronomy and Nizamia Observatory, Osmania University	7,62,000
<b>Botany</b>		
2 Plant Morphology and Embryology	Department of Botany, Delhi University	9,64,000
3 Plant Pathology and Mycology	Department of Botany, Madras University	9,06,000
<b>Chemistry</b>		
4 Chemistry of Textile Fibres and Dyes	Department of Chemical Technology, Bombay University	8,60,000
5 Chemistry of Natural Products	Department of Chemistry, Delhi University	9,22,000
<b>Physics</b>		
6 Theoretical Physics and Astrophysics	Department of Physics and Astrophysics, Delhi University	9,55,000
7 Radio Physics and Electronics	Institute of Radiophysics and Electronics, Calcutta University	11,77,000
8. Crystallography and Biophysics	Department of Physics, Madras University	9,82,000
<b>Geology</b>		
9 Himalayan Geology & Palaeontology	Department of Geology, Panjab University	8,97,000
10 Structural Geology, Geomor- phology, Petrology and Mineralogy	Department of Geology, University of Saugar	9,51,000
<b>Mathematics</b>		
11 Pure Mathematics	Department of Mathematics, Bombay University (in collaboration with the Tata Institute of Fundamental Research, Bombay)	4,03,000
12 Applied Mathematics	Department of Applied Mathematics, Calcutta University, and Mathematics Department, Jadavpur University	10,02,000
13 Pure Mathematics	Department of Mathematics, Panjab University	6,09,000
<b>Zoology</b>		
14 Cell Biology and Endocrinology	Department of Zoology, Delhi University	9,58,000
15 Marine Biology	Department of Marine Biology, Porto Novo, Annamalai University	8,46,000
<b>TOTAL</b>		<b>1,31,94,000</b>

## (II) HUMANITIES AND SOCIAL SCIENCES

### Economics

1 Public Finance and Industrial Economics	Department of Economics, Bombay University	5,05,000
2. Economics of Development and Economic History	Department of Economics, Delhi University	2,75,000
3 Agricultural Economics	Gokhale Institute of Politics and Economics, Poona University	6,44,000

### Education

4. Educational Research	Department of Education, M.S University of Baroda	7,88,000
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### History

5. Ancient Indian History and Culture	Department of Ancient Indian History and Culture, Calcutta University	5,39,000
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### Linguistics

6. Applied Linguistics	Deccan College Postgraduate and Research Institute, Poona University	8,84,000
7 Dravidian Linguistics	Department of Linguistics, Annamalai University	4,67,000

### Philosophy

8. Philosophy (Indian)	Department of Philosophy, Banaras Hindu University, Varanasi	5,94,000
9 Advaita and Allied Systems of Philosophy	Department of Philosophy, Madras University	3,93,000
10. Metaphysics	Department of Philosophy, Visva Bharati	3,10,000

### Sanskrit

11 Sanskrit Literature	Department of Sanskrit, Poona University	5,47,000
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TOTAL 59,46,000

Source UGC Annual Report 1963-64

## NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC)

The National Assessment and Accreditation Council is an autonomous institution established under Section 12CCC of the UGC Act and located at Bangalore. Among the various objectives of NAAC an important activity is "to initiate research on the process of assessment and accreditation".

In fulfilment of the above NAAC invites proposals from experienced academicians/administrators to conduct research in areas relevant to assessment and accreditation. The applicants may send in the project proposal (2-3 pages) indicating the nature of study, duration and budget estimates. A brief bio-data may also accompany the proposal.

The proposal may be addressed to the Director, NAAC, Post Box No. 1075, Rajajinagar, Bangalore-560 010 and sent in before 30th March 1996.



# ASSAM UNIVERSITY

## Past, Present, Future

Manjit Singh\*

The flow of time is continuous like a stream of water. It is for our analytical convenience that we divide this continuum into sections, such as, past, present and future. Moreover, this is sheer physical time. The cultural, social or political times, on the other hand, are very difficult to fit into the above slots as they not only criss-cross all the times but also produce a picture of simultaneity of the past, present, and future, at least in the short run. Therefore, social time is more like a continuous movement of sea water : now uptide, now low tide, now smooth movement, now sea storm; but, unlike stream of water, there is no beginning and end to the social, cultural, and political times.

### In the Past

The idea of Assam University, before acquiring tangible form of an Act, namely, The Assam University Act of 1989, also traversed through various socio-political and cultural tides of time. In spite of the bounty of Nature all around and that of the great river Barak, this valley of South Assam, named Barak Valley, remained at the fringe of the developmental process in the North East. There are various reasons for this peripheralisation of the periphery. Geographically, the Valley being surrounded by the hills, the abode of five sister states, it remained cut off from the main centres of power and administration. Culturally, it was extension of undivided Bengal, and the emotional bindings of the hearts could never be resealed after the political division of the valley. Linguistically, the large majority of the people from the Barak Valley are Bangla speaking and they resented the imposition of Assamese tooth and nail. The economic neglect of the valley is partly the consequence of the politicisation of the above factors. As a result, barring the tea industry (which is more closer to agriculture than industry) there is hardly any industry in the region worth the name.

In this background, the decision of the Union Government to open a Central University has been

viewed as an end to the 'long winter' and the beginning of the 'spring' in the Barak Valley. This could clearly be seen from the massive gathering at Dargakona (Silchar) which assembled to listen to the inaugural speech of the Prime Minister Mr P.V. Narsimha Rao on 21st January 1994. For the peasants and the workers, the urban and the rural, the youngsters and the old, the day was the inauguration of new hopes and new dreams. The atmosphere was overwhelmed by emotions when the Prime Minister introduced Prof. J B. Bhattacharjee as the first Vice-Chancellor of the Assam University at Silchar. He was hailed with the long applause and cheers. Since the time of the inauguration, each day in the life of this young University is a new milestone, which only shows that how strongly the need for a University was being nurtured during all those years in the past.

### The Present

The major objectives of the University, as enshrined in the Act, are

1. to integrate teaching and research activities within and across the disciplines,
2. to educate and train manpower for the development of the state of Assam, and
3. to pay special attention to the improvement of socio-economic conditions of the people and to their intellectual, academic and cultural development

The fulfilling of the above objectives is a challenge before the University. However, to meet this challenge should not be an uphill task for the University as Silchar, the district headquarter of Cachar and the main nerve centre of the valley, has a history of education. Though the early isolated efforts can be traced as far back as the middle of the nineteenth century, the real impetus in education is a twentieth century phenomenon. Out of the twenty odd colleges in the valley at present, nearly half of them are located in greater Silchar only. One of these colleges, namely, G.C. College, was established as back as in 1935 which is now imparting

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Silchar-788 015 (Assam)



education to nearly 2000 students with the help of 103 teachers. Regional Engineering College, Polytechnic Institute and Silchar Medical College are great attractions for the professional students from all over the North-East. These institutions were nurturing a feeling of being orphans in the absence of any university within their easy reach. Gauhati University, to which all these colleges were affiliated before the Assam University, was at a distance of 12 hours journey by bus and more than twenty hours by train (in the hilly terrain distance in kms does not make any sense) The coming up of the Assam University is a realization of the long cherished dream by the local people in general and the academic community in particular.

Within a period of less than two years Assam University has already acquired a stature larger than her life. Twelve departments from 5 Schools viz Social Science, Physical Sciences, Languages, Humanities, and Management Studies, are imparting education to 900 students. A large influx of the students shows that thousands of them in the past, especially from the weaker sections, were keen on higher education but could not afford it due to the absence of such a facility in the vicinity. Another six departments, which have already been sanctioned by the UGC, will start functioning from the early next year. These departments are from the four Schools, namely, Life Sciences, Physical Sciences, Environmental Sciences, and Information Sciences. By now, the University has given affiliation to 47 colleges from the five districts of South Assam, that is, three from the Barak Valley and two tribal hill districts of North Cachar Hills and Karbi Anglong. The University has a plan to open up forty departments in a phased manner which will work under ten different Schools (*Annexure 1*)

Besides teaching the common subjects, special attention has been given to environment and ecology. The Schools of Environmental Sciences, Information Sciences and Life Sciences would play a major role in the eco-friendly development of the region.

The unique feature of this Central University is to link knowledge and research with the needs of the people from the region. In order to fulfil the objectives of the Act, the University has prepared a blueprint covering the needs of all the sections of the society hailing from the valley as well as the surrounding hills. The biggest hope in this direction is

the University's plan to create an extensive network for applied research through sixty Research Centres, functioning from the respective teaching departments. This network of Research Centres would provide backward and forward linkages between the peoples' needs and the University's research. The opportunity for the students to work on the problem oriented projects in these Research Centres would help them not only financially but also academically through the realisation of practical significance of their knowledge from the books. In this sense, the organic link being established through the Centres between the people and the University would be of great mutual help and on instance of cooperation. Further, for the students who cannot continue their education for long and want to join job market immediately, the University has introduced diploma and certificate courses in job oriented disciplines, which can be completed within two and one semester, respectively. Such short courses are being planned keeping in view the local demands of the economy and environment, that is, development without destruction. In this manner the researchers, scientists and teachers from all over India who are pouring into this heavenly valley, will not only impart their experiences to the local population but also would be able to enrich themselves by imbibing 'virgin' cultural heritage of the North-East

It sounds ambitious but it is not impossible. At the moment, there are many odds being faced by this young University, such as, lack of own campus, shortage of power supply, and scant communication network. This is a challenge, both for the people from the valley and for the University. The rare cooperation between the students and the teachers as shown at various occasions, such as, seminars, debates, cultural activities and even building the library shows that to overcome the present odds is not a big task.

### **Future Hopes**

The future promise of the Assam University can be 'read' through her performance in the past. It has already taken a head-start. At present, if twelve departments (six of them running both M.A I and II, and the remaining six only M.A I) can enrol 900 students and that too, in some of the departments, after conducting interviews for screening, it is not difficult to imagine that how big the University would be after the commencement of all the 40 de-

partments within the next couple of years. One of the important contributing factors to this success is the geographical location of the University. Assam University is located almost at the centre of five sister states, namely, Meghalaya, Nagaland, Manipur, Mizoram and Tripura. There is every hope that, very shortly, the University will take on the role of elder sister for the surrounding sisters.

The academic achievements of the very first year are commendable. The University's first anniversary was marked by, besides cultural programme, holding a symposium on "National Education Policy and the Emerging Role of the University System". Holding of a four day seminar on the "History and Society of South Assam" shows that the University has already taken a big leap forward to fulfil the objectives assigned in the Act. In order to encourage active participation of the affiliated

colleges in the University life, the latter took the lead in co-sponsoring a workshop on "Historical Method and Social Science Research" with Cachar College. Similar academic interaction is being actively cultivated with other colleges in general.

In December 1995, the hosting of annual Conference of North-East India History Association (NEIHA) by the Department of History is a natural culmination of the past year and a half active life of the University. Similarly, the other departments, in spite of the "teething problems", are busy in organising seminars, workshops and symposia. The affiliated Research Centres are floating research proposals. The hectic life of the teachers and staff, and the active interest of the students, only shows that, very shortly, Assam University would emerge as one of the biggest academic centres of the North-East.

*Annexure 1*

#### **List of the Departments of Assam University, Silchar**

<i>Sl. No</i>	<i>School</i>	<i>Department</i>	
		<i>Running at present</i>	<i>Yet to be started</i>
1.	Languages :	Linguistics English Bengali Sanskrit	Hindi Assamese Arabic & Persian Manipuri
2.	Humanities	Education Philosophy Fine Arts	Psychology Performing Arts
3.	Social Sciences	Economics Political Science History Sociology	Social Work
4.	Management Studies	Business Management	Commerce Public Administration
5.	Environmental Sciences	Ecology	Geography Geology Architecture
6.	Information Sciences	Mass Communication	Library & Information Science
7.	Life Science	Botany Zoology	Microbiology Agri-Botany Biochemistry Home Science Anthropology
8.	Physical Sciences	Physics Chemistry Mathematics	Statistics Biophysics Computer Science

# Roby Kidd and Indo - Canadian Cooperation in Adult Education

S.Y. Shah\*

India and Canada have much to share and learn from each other. Their friendly ties extending over a long period have generated a number of Indo-Canadian collaborative projects in various fields. In adult education there were two collaborative ventures viz. Farm Radio Forum and University Continuing Education. While the former was initiated and implemented during 1950-60, the latter was executed during 1965-67 under Colombo plan. Farm Radio Forum which had played a successful role in the education of adults in Canada during 1940-50 greatly appealed to Indian adult educators who adopted it in India during 1950-60 with Canadian cooperation. Canadians also extended full support in the setting up of the first university department of continuing education at the Rajasthan University. The operationalisation of these projects paved the way for the movement of specialists in both the directions. The varied and rich experiences of those who participated in such projects would be quite useful to the policy planners. Unfortunately not many have documented their role and experiences. At best, most of the official reports provide only the bare details of programme planning and implementation strategies. It is in this context that the publication of the autobiography of Roby Kidd: *Adult Educator (1915-1982): The Autobiography of a Canadian Pioneer*, Toronto : Ontario Institute for Studies in Education. 1995. Pp. 212. Price not mentioned, who served as a key member of the Technical Mission Team to India during 1965-66 assumes importance. With the exception of a compilation of articles on Roby Kidd edited by Nancy J. Cochrane (*J.R. Kidd: An International Legacy of Learning*, 1986) not much is available on him or the collaborative programme between the universities of British Columbia and Rajasthan which marked the beginning of Indo-Canadian cooperation in university adult education.

Dr. Roby Kidd, or Roby as he was affectionately addressed by his colleagues and contemporaries

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\*Director-in-Charge, Adult Continuing Education and Extension Unit, 204, School of Social Sciences-I, Jawaharlal Nehru University, New Delhi-110 067.

was undoubtedly one of the champions of Indo-Canadian friendship and cooperation who tried to bring the two countries closer through the programmes of adult education. Although quite a familiar figure to many an Indian adult educator during 1960-70, I did not have the privilege of meeting him in person inspite of his repeated visits to India. However, I did get an opportunity of meeting some of his family members, colleagues and going through a plethora of his vast collection of private papers meticulously preserved at his home and the archives of Ontario State and Ontario Institute For Studies in Education (OISE) (through the courtesy of a Senior Social Science Fellowship awarded by Shastri-Indo-Canadian Institute) which gave me considerable insight into the personality and philosophy of the man.

Roby was a very committed and dynamic person who played some significant innings in the field of adult education in Canada, India and other parts of world. He travelled extensively, enjoyed adventures, interacted without inhibitions with people of all races and religion and was always eager to learn and to know what forms of education and training they needed. He had close interaction with some of the leading adult educators of his time viz, Paulo Friere, Malcolm Adiseshiah, Mohan Sinha Mehta, S.C. Dutta, etc. His name was linked to two key adult education organizations viz. Canadian Association for Adult Education (CAAE) and International Council For Adult Education (ICAE) through which he tried to strengthen the profession of adult education. Not only did Roby try to network among adult educators of different parts of world through a series of conferences and correspondence but also taught graduate courses at the Department of Adult Education of OISE, where he served as the founder chairman and professor for sixteen years. During his long span of career, Roby also tried to further the cause of adult education through Unesco, where he served on the Adult Education Committee, as a Jury Member of World Literacy Awards (1969-81) and as the president of World Conference on Adult Education held in Montreal in 1960 and Chairman of the

Evaluation Committee of the Experimental World Literacy Programme (1974-75). As a founder editor of one of the prestigious International Journal in adult education — *convergence* — Roby was instrumental in providing an international forum for the dissemination and discussion of various issues on adult education. The fact that he received Honorary Doctorates from seven universities and several awards may be seen as a recognition of his contributions to the field of adult education.

Roby's tenure as the Director of the Department of Continuing Education of Rajasthan University during 1965-66 which brought him into contact with a large number of Indian adult educators, was a turning point in his friendship with Indian adult educators. During his one year stay in India he travelled widely, participated in a number of conferences and spoke and wrote a lot on Indian adult education. Through his articles in *Toronto Daily* Roby tried to familiarise Canadians about Indian Society, education and the role of Canada. While in India Roby did not leave a single opportunity of lobbying for adult education. He met the then Chief Minister of Rajasthan, Mohan Lal Sukhadia and Smt. Indira Gandhi, then Minister of Communication to plead for making use of radio for education. He worked closely with S C. Dutta and other adult educators in drafting of the Chapter on adult education in the *Report of the Education Commission (1964-66)*. Roby's relation with India did not end with the termination of his contract, it continued till his death.

Roby had a great fascination for India. A number of letters from several Indians seeking Roby's professional and personal advice, kept at the Ontario State Archives bear witness to his Indian connections and concern. He believed that "if there is anything to the doctrine of incarnation, I must have lived in India before" (p. 109). He wrote that in India he found the first symbolic representation of learning: the Goddess, both of learning the arts, the beautiful life giving Saraswati (p. 111). Having had a chance of learning about Indian society at a Baptist Camp at the age of fourteen, Roby had to wait for more than thirty years to realise his adolescent desire. Roby's encounter with India began in 1961 when he visited New Delhi to attend the meeting of the World Confederation of the Organizations of the Teaching Profession. During the course of the Conference, Roby visited Indian Adult Education Association and literacy Centres around Delhi and made contacts with some of the eminent adult educators.

However, it was his meeting with Dr. Mohan Sinha Mehta, the then Vice-Chancellor of Rajasthan University who sought Roby's help in setting up a Department of Continuing Education that provided him opportunity to get closely involved in Indian adult education. Roby followed up the request of Dr. Mehta earnestly and held discussions with Dr. John Friesen, then Director of the Department of Continuing Education at University of British Columbia, Mr. N.A.M Mackenzie, President of the University and Mr. H.O Moran, Head of Canada's Foreign Aid Programme. Subsequently when Dr. Mehta visited Canada in 1962, preliminary discussions were held and the draft proposal was prepared.

Despite Dr. Mehta's contacts with the highest officials in Delhi and the best possible follow up, the project took unusually long period for clearance from the Government of India. Being the first project of its kind, Indian bureaucracy was probably overcautious. Canadian bureaucracy was also no better in expediting the project. The project remained buried in official files. "The department official", writes Roby, "did not bother to check the file and put it away for a few weeks while he tended to what he considered more urgent business". In the absence of any idea about the initiatives of Roby, Dr. John Friesen, and the commitment of University of British Columbia, the concerned officer passed on the project to St. Xavier University which was quite renowned for its work in adult education and international commitments. Roby got a shock of his life when he came to know that 'his baby' had already gone to St. Xavier University which was nowhere in the picture at the time of conception. In the process of retrieval of the project and its operationalisation nearly two years were lapsed. Although most international development projects run into excruciating delays, the Rajasthan project suffered "incalculable loss" principally because there remained only sixteen months of tenure in Dr. Mehta's Vice-Chancellorship. Such a short time, was insufficient for Dr. Mehta to win over the anti adult education lobby at Rajasthan University. Besides, he could not recruit experienced and compatible members of faculty. It is against this background that the achievements of the Department of Continuing Education should be studied.

Working against all odds, a lot was accomplished by the department during the three years of the project. Roby excelled in lobbying for adult education among the officials of Central Ministry of

Education, University Grants Commission, the Government of Rajasthan and Canadian High Commission. During Roby's tenure, the emphasis was on educating the leadership and the decision makers through a series of seminars and workshops. Roby also worked on a plan for setting up evening colleges, residential centres and launching correspondence courses. He also encouraged and supported the formation of professional organizations like Bikaner Adult Education Association. Roby along with Dr. James Draper accomplished a lot in a short span of a year. However, he was fully aware of his limitations of working in an alien but ancient country. To quote him, "you don't undertake to bring about fundamental changes in the educational system of an ancient country and help people reconceive and redesign new forms of learning without opposition and resistance. Yet the project was phased out even when the ideas it had generated had begun to work" (p. 122). According to Roby the departure of Dr. Mehta made all the difference. He believed that "there is a period in any project where one or two individuals literally cannot be replaced without the severest loss". Should the success of any project depend on one individual? What were the reasons for winding up the project? Did the project

achieve the aims for which it was conceived? How did Roby influence his colleagues and contemporaries? What strategies did Roby adopt in overcoming opposition and obstacles? What were some of the challenges of working in an alien culture? How did the Indian faculty members react to Canadian initiatives? The otherwise rich autobiography is silent on these issues.

It seems that Roby had a sense of history. Not only did he preserve each and every paper but also started writing his autobiography which remained incomplete during his life time. This task has been ably accomplished by his wife — Margaret — by bringing out the present publication which provides a lot of interesting information about adult education during 1950-80 and also gives insights into the vision and mission of Roby. Undoubtedly it is a magnificent compilation of Roby's memoirs judiciously selected from a huge collection. Having had a chance of going through the Roby Kidd collection, I feel that a lot more remains to be tapped for a more detailed volume on Roby whose ideas, initiatives and impact need to be studied for a better understanding of the development of adult education as a field of practice and study.

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# Educational Administration in Karnataka

N. Venkataiah\*

One of the books I read during the last two years, which left a lasting impression on my mind is *Educational Administration in Karnataka — Structures, Processes and Future Prospects* published by National Institute of Educational Planning and Administration, and Vikas Publishing House, New Delhi. It was published in 1994. The authors of the book are Baldev Mahajan, J.C. Goyal and B.N. Raghavendrachar. The book is neither too big nor too small. It consists of 271 pages with a foreword, preface, subject contents, list of tables, list of figures, abbreviations—altogether occupying from i to xxvii pages, price: Rs. 295/- (hardbound).

The book is a report of a survey of educational administration in Karnataka carried out by the National Institute of Educational Planning and Administration in collaboration with State Education Department of Karnataka. For this survey, primary data were procured through field study conducted with the help of a set of structured tools. A vast variety of secondary sources such as the central and state government documents, non-governmental publications, census reports, state budgets, plan proposals, educational research studies etc, proved useful for the analysis of the state educational system in a national perspective. Though primary data for the survey pertains to the year 1990-91, the data taken from secondary sources are from the year 1993-94.

## Chapters and their Importance

Let me give a brief description of chapters so as to focus on different important topics covered in the book. It contains fifteen small chapters, smallest chapter consisting of 5 pages and the biggest chapter consisting of 30 pages

In the first chapter 'Introduction', objectives of the survey, scope and coverage, methodology of survey, problems and difficulties in collecting the data from the State Education Department and other organisations have been described. The procedures to be followed for a survey study have been

meticulously followed. Therefore, the data collected could be considered reliable.

Chapter 2 'The State' starts with general administrative structure, demographic profile and socio-economic features of the state. Later part of the chapter describes in detail the educational structure, educational facilities, elementary education, secondary education, district-wise distribution of schools, district-wise literacy rate, etc. Giving a map of India with the location of Karnataka and providing a separate enlarged map of Karnataka state indicating administrative divisions are of utmost value for any reader. The simple and direct method followed to describe administrative structure and educational structure of the State makes even a layman understand and get interested in them.

Salient features of some of the important education acts, codes, rules are briefly discussed in Chapter 3. The Karnataka Education Act of 1985 is also described in this chapter. A notable feature of the Act was to bring all institutions including institutions run by minorities under some kind of general control of the state government. The 'Legal Basis of Education' in Karnataka State is made crystal clear to the readers.

Chapter 4 'Educational Policy and Programmes' considers specific programmes proposed under elementary, secondary, adult and non-formal education and teacher training. All the academicians in the state unanimously agree with the opinion expressed by the authors about commercialisation of technical education. "Too much reliance on private managements for increasing the capacity for technical education has led to its widespread commercialisation in the state. During the eighth plan period, stringent measures are planned to eradicate the malpractices associated with this process of commercialisation of education" (p.43). Thus the authors are bold enough to express the facts nakedly without giving any sugar coating to hide the bitter truth.

In Chapter 5 'Organisation and Administration', a brief sketch of historical development of Education Department in Karnataka from 1857 to 1946, the post-independent development and the

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present set up has been presented. The present organisational set up of educational administration at Secretariat, Directorates of Public Instruction, Pre-University Education, Mass Education, Vocational Education, Collegiate Education, Technical Education, Secondary Education Examination Board, Inspectorate of Education have been given in the form of flow charts (figures). These figures are not only eye catching but also provide the essential gist of themes discussed in the text.

Chapter 6 'Role of Local Bodies, Community and Non-government Organisations in Education' attempts to outline administrative structure of local bodies, strengths and weaknesses of educational administration under local bodies, community participation and non-government organisations in educational development. An important point that the authors make clear in the chapter is that private enterprise plays a dominant role in the state in the field of higher education as almost 70 per cent of the institutions are under the private sector

In 'Educational Programmes for Disadvantaged Groups' (Chapter 7) minority languages programmes, education of girls, education of SCs, STs, backward classes and minorities, programmes for women and children's welfare, management of incentive schemes like Vidya Vikasa, mid day meal programme are briefly discussed.

Chapter 8 'Personnel Management' throws light on the tasks like recruitment, posting, transfer, promotions, service conditions of educational personnel and avenues for professional development and performance appraisal of personnel management. An important point which is made clear in the chapter and which is to be borne in mind is that management of educational personnel including different cadres of educational administrators, supervisors, heads of institutions, teaching and non-teaching staff is a key to the efficiency and success of educational administration.

In chapter 9 'Financial Management' it is aptly stated that the main responsibility of providing adequate funds for education remains with the state government. The state receives some grants from the central government for centrally sponsored schemes. The state government has to provide grants to local bodies and private and voluntary agencies for running educational institutions and other educational activities. While briefly describing budget formulation, plan and non-plan budget, grant-in-aid, audit and accounts system, sources of income,

educational expenditure, expenditure at institutional level, the authors convincingly argue that the plans, procedures and organisation for the financing of education have to be so devised as to serve as necessary adjuncts to the educational process than to pose hurdles and impediments.

Chapter 10 'Information Management' presents how statistical information is generated, collected and compiled at district, divisional and state levels. This chapter has 5 pages and the information provided in it, I feel, is meagre. I feel the information given in this chapter could have been combined in any other appropriate chapter. The fragmentary information given here, does not require the status of a chapter.

In chapter 11 'Educational Planning' the working of a planning unit of the Department of Education at the Secretariat level with two sections: One for plan formulation and implementation of the centrally sponsored schemes and the other for plan schemes relating to school and higher education is described.

Chapter 12 'Inspection and Supervision' deals with norms of inspection, set up of educational inspectorate, activity profiles of area level officers, frequency of inspection and inspection report. Though inspection part is adequately dealt with, I strongly feel that the supervision part has not received proper attention and its due share.

Organisation and set up of Directorate of State Education Research and Training and pupil evaluation have been discussed in Chapter 13 'Academic Support System'

A detailed analysis of the system of planning and management at the institutional level has been done in chapter 14 'Institutional Planning and Management'.

The final chapter (15) on 'Future Prospects' outlines the urgent tasks confronting educational administration today.

### **Appreciation**

Thus all the relevant aspects of planning, administration, innovations and problem-solving approaches pursued in the field of education have been brought together in this book, offering a fresh perspective on educational administration in general and school education in particular. From the chapters included in the book and the treatment rendered to them, it can be said that this book covers



various aspects of educational administration in Karnataka in a comprehensive manner. As rightly pointed out in the preface of the book 'educational administration is conceived as a means of achieving the objectives of educational policies and programmes'. This book therefore, 'examines the educational system, its legal bases, major provisions and organisational set up at the state, regional, district and sub-district levels as well as the role of non-governmental organisations and programmes for the disadvantaged groups'. The comprehensive approach is further supported with the inclusion of the topics like the systems of personnel management, planning, finance, information, inspection and supervision besides the academic support system as well as development of research and innovative practices in administration.

Before the publication of this book, detailed data on the size, efficiency and performance of educational administration in the State of Karnataka were not readily available. Two decades ago, that is, in 1973-74 the first survey of educational administration was conducted by the National Institute of Educational Planning and Administration (NIEPA). In the gap of nearly two decades, number of changes have taken place in educational administration in Karnataka too, as in other states. This book being an outcome of the survey recently completed in Karnataka, it attempts to bridge the gap in information. Further it gives the present status of educational administration right from the institution to the state level.

The book provides a critical analysis of various functions of educational planning and administration with suggestions for future development of the administrative system, outlining the tasks ahead for educational planners and administrators, particularly, at district and institutional levels. The study reveals interesting profiles and features which could help in designing more tangible pre-service and in-service programmes for educational functionaries.

Some indicators of educational development in the state and at all-India level at different points of time are given in Appendix II of the book. The indicators are in respect of demographic, socio-economic features; educational facilities like schools, teachers and enrolment, literacy and expenditure on education. The indicators of educational development

included in the book, give a comparative picture of the state and the country as a whole on a number of important aspects.

A useful feature of the book relates to the preparation and presentation of activity profiles of different educational management personnel like district/block education officers and heads of institutions. Another impressive feature of the book is to discuss the problems and difficulties, problems and suggestions relating to educational administration at the end of some chapters.

The value and importance of the book is further enhanced with the inclusion of select bibliography in respect of studies conducted and books brought out on educational administration at the national level and in the state/union territories. The printing of the book is good and figures and tables are attractive. Required notes and sources of information have been provided under each table so as to facilitate the reader to refer to the original source if required. This book is a blend/synthesis of descriptions as given in traditional books and basic information in the form of well structured tables, flow-charts and histograms as in the case of research thesis.

The book is the most recent addition to educational administration and portrays vividly the present educational administration in Karnataka. Its appearance at this particular point of time seems quite timely. The volume is methodologically sophisticated, clearly organised and well written. It is both readable and enlightening. The book, no doubt, is a significant contribution to the literature of educational administration in India.

### **Critical Observations**

1. The book addresses itself primarily to the administration of school education. Consequently, technical, professional and higher education have not been thoroughly discussed although there are occasional references to them. The concentration and focus is mainly on administration of school education.

2. The title of chapter 12 is 'Inspection and Supervision'. We expect, though not an equal treatment, at least adequate treatment for both the subjects. Inspection part is given more priority and is

thoroughly discussed. The supervision subject has received little attention. This is evident when we observe nothing except 'subject supervision' under supervision. My feelings are reinforced by a significant omission of the term 'supervision' in the index of the book.

3. Some important key terms like administration, organisation, management, inspection, supervision, planning, institutional planning, school plant etc, are neither defined nor explained properly to understand their comprehensive meaning. The theoretical and conceptual aspects of educational administration are almost neglected. The subtle difference/distinction between some key terms are also not explained anywhere in the book.

4. In the process of administration, there is the danger of ignoring the larger and ever changing issues that have begun to dominate our educational institutions. One such issue about which nothing is mentioned in the book is the presence of external political focus that sap the energy and erode the autonomy of organisations and reduce the productivity of work. Even at the state level when the governments change, educational policies may get changed. Any progressive educational administrator should be aware of these changes.

These four aspects mentioned under critical observations are not serious limitations of the book. I am very much aware that every reviewer or critic is likely to observe any book from his point of view and also from his academic and administrative background. I mean to say if these four aspects were properly taken care of by the authors, the value and importance of the book under review would have further increased.

### Conclusion

The book does what it sets out to do. It has come out with exceptional fitness and competence. Its strength is rooted in the range and clarity of the description of the chapters. The three principal objectives of the survey were:

- a) to understand the present status of educational administration in terms of its structures, systems and processes at various levels,
- b) to study the experiments, innovations and changes, and
- c) to identify the major issues and future tasks of educational planning and management.

The purpose of the survey was to achieve these three main objectives. The project team has done its best to collect all relevant and required data for realising these objectives. The authors have added flesh and blood to the skeleton information to get a logical, coherent and meaningful units viz., chapters. Authors of the book deserve congratulations for doing systematic work and publishing the same for the consumption of the public. The book writers have borne in mind mostly the main objectives of the survey study. If we evaluate the book based on the objectives of the survey study, I am sure that all the three objectives have been fully achieved. One cannot fault a book for not achieving something it never set out to do.

Apart from delineating the new trends and developments in education in general and in Karnataka in particular, vital information and data on the size, efficiency and performance of educational administration have now been made readily available through this book to educational planners and administrators, scholars and academicians. I am sure that this book will serve the needs of teachers, students and researchers and others interested in the development of education.

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## The New Economic Policy

**Dr. C. Rangarajan, Governor, Reserve Bank of India delivered the Convocation Address at the Twentyninth Annual Convocation of the Madurai Kamaraj University, Madurai. He said, "The thrust of New Economic Policy is towards creating a more competitive environment in the economy as a means of improving the productivity and efficiency of the system. This is to be achieved by removing the barriers to entry and the restrictions on the growth of firms. While the Industrial Policy seeks to bring about a greater competitive environment domestically, the trade policy seeks to improve the international competitiveness subject to the protection offered by the tariffs." Excerpts**

How far we as a nation have come during the last fortyeight years and where do we go from here? Fortyeight years is certainly not a long period in the history of a country and much less so for a country like ours with a long past going back to the beginning of civilisation. Nevertheless, the last fortyeight years are very significant for our country. We have moved from the status of a dependent country stricken at periodic intervals with famines and shortages to that of an independent nation with a reasonable degree of stability.

During the four and half decades beginning 1950-51 to 1994-95 the Gross Domestic Product of the country grew at an average annual rate of 4.1 per cent. As population grew more or less at the rate of 2.2 per cent per annum, the per capita Gross Domestic Product increased at an annual rate of 1.9 per cent which had the effect of more than doubling the per capita income over the period. Significant changes have occurred in the structure of Indian economy. Foodgrain output which stood at 50 million tonnes in early 50s rose to about 192 million tonnes in the very recent period. The contribution of industry to national income has increased

perceptibly. We have today a diversified industrial base capable of producing basic and capital goods as well as consumer goods. The growth of the economy is also reflected in a fairly substantial expansion in educational and health facilities. Literacy rate has gone up from 18.3 per cent in 1951 to 52 per cent as per the Census of 1991. Public health facilities have widened. As a consequence, expectation of life at birth has increased from 32 to 61 years.

Even as one recognises the significant changes that have occurred in Indian economy there are obviously many failures, shortcomings and disappointments. While the rate of growth of the Indian economy in the last 48 years is significantly higher than what the Indian economy had experienced before independence, it has been less than our expectations, it is also lower than what many other countries in South East Asia have achieved. Even the benefits of such a modest rate of growth of the economy have been diluted because of the rapid increase in population. Notwithstanding several attempts made to ensure a more equitable distribution of the benefits of growth, the incidence of poverty is still large. Despite differences on the

definition of poverty and how to measure it, even the most optimistic estimate puts the proportion of people below the poverty line in 1987-88 at around 30 per cent. While the ratios of savings and investment in the economy have shown considerable increase, effective use of capital has remained a serious problem. Incremental capital-output ratio rose steadily till the end of Seventies and a decline was perceptible only since the early eighties.

This list of inadequacies is not to underrate and minimise what we have achieved but only to indicate the agenda that lies ahead of us. We have overtime created the wherewithal for progress. The real task today is to use these advantages for further growth. But this could need some fundamental changes in our approach to economic development and the means and instruments to achieve the desired results. These are the changes that the New Economic Policy seek to bring about and I would therefore like to say a few words on the New Economic Policy on what it is and equally importantly what it is not.

In the fifties and sixties the dominant view in the literature on development economics was that the Government had an important role to play and that it should undertake activities that would compensate for 'market failure'. 'Market failure' was perceived as the inability of markets to allocate optimally resources over time, that is, for investment because of the 'myopic' nature of the market participants. The literature also emphasised the importance of economies of co-ordination that aggregate planning could achieve. It is this line of reasoning that led most developing

countries to formulate economy-wide plans. However, four decades of development experience has shown that there can be 'government failure' as well. The regulatory state in many countries has resulted not only in economic losses due to misallocation of resources arising from faulty investment decisions but also in diversion of resources to rent seeking activities because of the very regulations themselves. In fact, if there is a lesson to be drawn from the development record of the last four decades, it is that there can be both 'government failure' and 'market failure' and that the critical issue is not so much the presence or absence of state intervention but the extent and quality of that intervention. The New Economic Policy builds on this experience.

The New Economic Policy comprises the various policy measures and changes introduced since July 1991. There is a common thread running through all these measures. The objective is simple and that is to improve the efficiency of the system. The regulatory mechanism involving multitudes of controls has fragmented capacity and reduced competition even in the private sector. The thrust of New Economic Policy is towards creating a more competitive environment in the economy as a means of improving the productivity and efficiency of the system. This is to be achieved by removing the barriers to entry and the restrictions on the growth of firms. While the Industrial Policy seeks to bring about a greater competitive environment domestically, the trade policy seeks to improve the international competitiveness subject to the protection offered by the

tariffs. Private sector is being given a larger space to operate in as some of the areas reserved exclusively for the public sector are also now allowed to private sector. In these areas the public sector will have to compete with the private sector even though the public sector may continue to play the dominant role. What is sought to be achieved is an improvement in the functioning of the various entities whether they be in the private or public sector by injecting an element of competition. There is, however, nothing in the New Economic Policy which takes away the role of the State or public sector in the system. It is sometimes made out that the New Economic Policy makes a total shift towards reliance on market. Nothing can be farther from truth than this. In fact, in the important physical infrastructure sectors of power, transport and communications, the share of public sector investment will be dominant. However, if the public sector is truly to play its role, it needs to improve its efficiency and productivity and generate the necessary surpluses as was originally envisaged. It is only an efficient public enterprise system that can enable the Government to meet its social obligations, a responsibility Govern-

ment alone can bear.

The key to India's growth lies in improving productivity and efficiency. This has to permeate in all walks of our life. Contrary to the general impression, the natural resources of our country are not large. In fact from the point of view of long range sustainability the need for greater efficiency in the management of natural resources of the land, water, minerals, etc has become urgent.

Undoubtedly, improving productivity is the function of many factors. The policy environment has to be correct; the organisational structure has to be appropriate and the attitude to work and work technology right. The recent development experience has clearly shown that countries which have grown fast have made heavy investment in education. Even as we aim at creating a broad based educational system, including compulsory education at the primary and secondary levels, we also need institution of excellence. Living as we are in a complex and a globally competitive world, institutions of excellence in all disciplines are required to meet the challenges of competition which in effect is a competition in skills and techniques.

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## Excerpts from the Report

by

**Prof. K. Aludipillai**  
**Vice-Chancellor**

**Madurai Kamaraj University**

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The pace of academic activities in the University continue to maintain its momentum, thanks to the generous support received from the Government of Tamil

Nadu and funding agencies such as the UGC, Department of Biotechnology, Council of Scientific and Industrial Research, Department of Science and Technology,

Department of Environment, Defence Research and Development Organisation, Department of Atomic Energy, Department of Ocean Development, Central Silk Board, Society for Social Forestry Research and Development, Biomass Research Centre, Ministry of Non-conventional Energy Sources, Tamil Nadu State Council for Science and Technology and Tamil Nadu State Council for Higher Education.

Ninety research projects are being operated by the University with grants from the above funding agencies. Of these, four projects have an outlay of more than Rs. 1 crore. Twenty one projects have an outlay between Rs. 10 lakhs and 1 crore. Twenty projects have an outlay between Rs. 5 lakhs and 10 lakhs and 45 with an outlay below Rs. 5 lakhs.

The University has now ten Schools, sixty Departments and eleven centres/chairs. Right in this sprawling campus, 1500 postgraduate students and 300 research scholars are engaged in academic pursuits. There are 75 colleges affiliated to the university with a student strength of over 61,000.

Through the University Departments and affiliated colleges the Madurai Kamaraj University is currently offering 160 courses consisting of 45 Undergraduate, 52 Postgraduate and 26 M.Phil. programmes and 37 Certificate, Diploma and P.G. Diploma courses. During the past 12 months 107 candidates have been awarded Ph.D. Degrees.

Mention should be made of the starting of new courses with career orientation such as B.Sc. (Electronics), M.Sc. (Communication Studies) and M.Sc. Environmental Remote Sensing and Cartography and P.G. Diploma courses, Bakery Science, Bakery Technology and Management,

Catering and Hotel Management, Hosiery Technology and Management, Export Management, Craftmanship courses in Food Production and Food and Beverage service and an integrated Five Year course in Master of Computer Science and Applications during the current academic year.

The Madurai Kamaraj University is a pioneer in the matter of introduction of correspondence education in this country. In fact, this year, it is celebrating the Silver Jubilee of the introduction of the correspondence course. We have a total enrolment of nearly 66,000 students in 9 UG, 15 PG, 12 M.Phil. and 7 Diploma and Certificate programmes. We are computerising information regarding the students enrolled in various courses in the Institute of Correspondence Course and Continuing Education and this will lead to considerable streamlining of record keeping and servicing for the students of the correspondence course.

The Madurai Kamaraj University has established close links with industry through Industrial Consultancy Group of the University.

Some analytical problems including quality control have been solved for SPIC, Fenner, Indian Syntans Ltd., and Kothari Phytochemicals. The group has helped Tamil Nadu Housing Board in designing suitable domestic sewage treatment plant for their Housing Colony. The Department of Microbial Technology has assisted entrepreneurs for growing mushrooms for marketing and manufacturing bio-fertilizer and they have also solved the problem of growth of bacteria and fungus in the paint for M/S. Vanguard Coating in Madurai. The Scientists in the School of Energy, Environment and Natural Resources provided

consultancy services for energy conservation, energy and environment audit and effluent treatment for various industries.

The Department of Immunology provides consultancy services to develop HLA reagent for organ transplant to M/s. PAS Biotech Pvt. Ltd., Madurai, to set up HLA tissue type lab. in the Tamil Nadu Hospitals, Madras and also M/s. Ortho Diagnostic Systems, Bombay.

The School of Biotechnology has provided consultancy to Hindustan Ciba-Geigy Ltd., Bombay. It has been approached by M/s. Parry Agro Industries Ltd., Madras for biopesticidal agent and World Bank through Tamil Nadu Dadha Pharmaceuticals for strain improvement for the commercial production of streptomycetes and L. Asparaginase.

Recently the School of Biotechnology has been entrusted with a project on Genetic Engineering of Chillies for Resistance to chilli leaf curl virus by Rallis India Ltd., Bangalore and another project on "Production of biobleaching enzyme system from fungi" by M/s. Esvin Advanced Technologies Ltd., Madras.

Conscious of the need for being innovative we are planning to introduce Honours Courses in select disciplines to provide opportunities for brilliant young men and women who wish to take up challenging courses in Humanities and Sciences.

The Madurai Kamaraj University is setting up a corpus fund inviting contributions from industry, Alumni, Charitable Trusts, individuals, etc. As per guidelines of the UGC the income from the fund will be used for research and development keeping the corpus intact.



### Integrated Approach to Knowledge & Information

Mr. G. Padmanaban, Director, Indian Institute of Science, stressed the need to analyse the biotechnology patenting process. He was inaugurating a month-long 10th course on "An integrated approach to knowledge and information", for senior executives and Government officials, at the National Institute of Advanced Studies in Bangalore recently. He highlighted the ethical issues involved in the patent process. The time had come for India to define patenting laws in order to derive the maximum advantage within the GATT agreement, he said.

Mr Padmanaban said if we accepted that genetic resource was not a global heritage but a property of a country, it would become imperative to protect the country's bio-diversity. He suggested that India should make a formal inventory of plant species in the country, and in addition, find ways to prove that they had their origins in the country.

Pointing out that India should indigenise science and technology in order to withstand strong international pressure, Mr Padmanaban said agreements must be based on human consideration—the 'informal innovations' of farmers must be recognised.

The Director of the Institute, Dr. Raja Ramanna, said the topic of the course was a matter of great importance to all those who were connected with industry and the future development of our country. Expressing concern over the poor response to the

course from the industry, he said the Government and the public sector were, however, cooperating. Tata group companies, Telco and Tisco, had sent representatives but many members of CII had failed to respond to invitations. The reasons may be that the officers of the companies were not able to leave their jobs to attend the one-month course.

However, they found time to attend eight-and 10-month courses of an elementary nature if they were being held abroad. In these courses, one learnt more about the problems of the foreign companies and not those faced in Indian situations. No useful course would be of a duration of less than a month. "I have no confidence in one-week courses, as the time to unpack and pack again takes about that time," he said. The fee for the programmes was also less compared with courses conducted in foreign countries.

Noting that these courses gave no financial benefit, Dr Ramanna said with liberalisation, industrial expansion had become complicated—legally, technologically, financially and diplomatically.

### UNESCO Chair at Swaminathan Foundation

A UNESCO-COUSTO Chair to promote eco-technology programme throughout the Asian region and a "JRD Tata Centre for Ecotechnology" are proposed to be set up at the Dr. M.S Swaminathan Research Foundation (MSSRF) in Madras. This was stated by Prof. Federico Mayor,

Director-General, UNESCO while inaugurating the Regional Workshop on "Ecotechnology and Shaping the Future," organised jointly by UNESCO and MSSRF.

The Chair was being established in recognition of the contribution of the Foundation in a number of areas, Prof. Mayor, said. In addition, a network linking the entire Asian region to "widespread" the emerging ecotechnology would also come up at a cost of US \$ 200,000, he said. The modalities of the network would be worked out soon.

An outcome of the network would be creation of employment related to the safeguarding of environment, called "ecojobs", he said.

The ecotechnology centre, to be established at a cost of Rs. 1.84 crores, would focus on research, development and diffusion of environmentally sound technologies in rural areas based on a participatory mode. It would examine the environmental, social and economic sustainability of various technological options resulting from the blending of traditional technologies with biotechnology, information, space, renewable energy and management technologies, Dr. Swaminathan said. It would also encourage information dissemination, undertake research on public policies and promote capacity building and awareness generation.

Prof. Mayor said the scientific community and academicians should join the endeavour for mobilising rebellion against the present global situation wherein

20 per cent of the population was enjoying 80 per cent of the resources. This disparity was the root cause for many of the complexities in the world. The joint target should be "inclusion of the excluded".

Speaking further on exclusion, he said educational exclusion was at the root of disparities. Even the traditional systems were not free from this. Everybody should be made literate so that all could participate in the process for a real democracy.

Nobel laureate and author of "Green Revolution," Dr. Norman E. Borlaug, said a large majority of people in the advanced world were unaware of the ecology of production and did not know where their food came from even as many in the third world were eking out a living from a "piece of land". The third world was suffering for want of food, despite surplus production of foodgrains worldwide.

### **Institute of Communication & Information Technology**

Delhi University is reported to have approved the proposal for setting up of an "Institute of Communication and Information Technology" at the South Campus. The institute will be a university maintained institution and totally self-financing.

The university hopes to create technical manpower in response to the rapid development in the field of electronics and growth of information technology in the country.

However, only "need-based courses" will be developed which is also an indication of the univer-

sity's need to generate extra resources for itself.

Such courses may start either in the form of supplementary courses of existing conventional courses or self-contained special courses, relevant to the "contemporary needs of industry and society" in general.

The objectives of the new institute will be to conduct professional courses and programmes of social relevance related to the field of communication and information technology; training of manpower in these areas; to open avenues for science graduates in professional courses having relevant job opportunities; to impart understanding of communication theories to the students of humanities and social sciences; to consider proposals for starting new courses and training programmes on the recommendations of teachers, departments, various professional and industrial bodies; to conduct research for development in the field of communication and information technology

Without any full-fledged department, the institute will run short-term certificate or diploma courses as well as long-term courses leading to master's degrees.

However, one unique provision in this institute is the discontinuance of courses no longer relevant and starting of new courses as per the emerging needs.

The primary aim is to create an institute serving as a nodal point for "interaction between various disciplines" in the related field and fulfil the purpose of a "meaningful inter-disciplinary centre" for various disciplines like languages, social sciences and applied sciences.

Although the university has yet to work out the financial modalities and decide on a "formal" fee structure, it is estimated that the consolidated fee will be Rs 6,000 per semester and Rs 12,000 annually.

There will be "no exemption of fee" for any student, however, loans from banks, sponsorships from industries, part-time jobs after classes or during holidays could be arranged for financially weaker students

The institute will have a small core staff in the form of a director and a few faculty positions. A provision for a floating faculty will be made for the purpose of running the required courses from time to time.

It is proposed that the float-



#### **INDIAN STATISTICAL INSTITUTE**

203, B.T. Road, Calcutta - 700035.

#### **Correction to Admission Notice 1.**

**Item 3 :** 2-year Master of Science (M.S.) programme in Quantitative Economics will be offered jointly in Bangalore, Calcutta and Delhi, and not in Calcutta alone as previously advertised.

**Item 6(h) :** Junior Research Fellowships in Sociology - Eligibility : Master's degree in History, Sociology or Social Anthropology.

For details, please refer to the Admission Notice 1 which appeared in this paper on 29/01/1996

**Dean of Studies**



ing faculty would be drawn on deputation or by inviting experts from other departments, institutions and industry.

The institute will have its own library and computer laboratories. The Computer Centre, South Campus, may be made a part of the institute.

### **Training Course on Women's Education**

A six-week training course on methodology of women's education and development meant for those working in women's studies centres and voluntary organisations dealing with girls education was held in New Delhi recently. Organised by National Council of Educational Research and Training (NCERT), the programme was meant to develop an understanding of women's issues, promote awareness about education and status of women to instil skills in collecting and analysing data for formulating research projects.

Inaugurating the course, senior police official Mrs Kiran Bedi, called upon the participants to act as agents of change at the grassroots level for it was only by working at that level that real improvement in status of women could be brought about. It was necessary to make women aware of both their rights and duties if all round progress of the society was to be ensured, she added.

Referring to her experience as IG, Tihar Jail, Mrs Bedi said she was able to bring about reforms in the prison because she could enlist cooperation of people from different walks of life for working with prisoners.

She reminded the participants that agents of change need

to set a good example before they could expect changes in the society they were working for.

Prof. A.K. Sharma, NCERT Director, in his presidential remarks said that there was a need not only to weed out textual material with sexist bias, but also to consciously develop textbooks and other materials which reflected positive values regarding girls and the status of women in society

Prof. Sharma said that surveys showed that the appointment of women teachers in schools especially in rural areas had helped in more and more girls enrolling in schools.

About 30 participants from several states including Assam, Gujarat, Maharashtra, Tamil Nadu and Delhi participated in the course

### **Ranbaxy Research Awards**

The Chairman of Harvard AIDS Institute, Prof Max Essex, recently presented the Ranbaxy Research Awards-1994 to four eminent scientists for their outstanding contribution in medical, pharmaceutical and clinical sciences. The award—consisting of a trophy, citation and Rs. 50,000 each—was instituted by the Ranbaxy Research Foundation in 1985 to give an impetus to research activity and help in reviving the country's scientific tradition. So far 35 scientists have received the award

The recipients for 1994 are: Dr. Lalji Singh, Deputy Director, Centre for Cellular and Molecular Biology, Hyderabad; Dr. P.K. Sehajpal, Reader, Department of Molecular Biology and Bio-chemistry, Guru Nanak Dev Universi-

ty, Amritsar; Dr. S.K. Sarin, Professor, Department of Gastroenterology, Maulana Azad Medical College, New Delhi and Dr. K. Soma Sundaram, Research Assistant Professor, City University of New York Medical School, New York.

On the occasion, Prof. Essex delivered the keynote address on "vaccines for infectious diseases of the 21st century" and dwelt at length on how Human Immunodeficiency Virus causing AIDS and other emerging and re-emerging viruses had a special relationship with modern day transportation, population migration, urbanisation and land use.

New emerging and viral pathogens occur because of rapid genetic changes through mutation and recombination, he said, adding that movement of zoonotic infections from animal species was also facilitated by a range of other factors including animal domestication, husbandry and organ transplant. "The recent trend toward organ transplants from heterogeneous species will only accelerate this threat," he warned.

However, striking an optimistic note he remarked that modern knowledge and technological application of molecular biology would act as preventive medicines of the future and also bring down the cost of vaccines and enhance their efficacy. "The available scientific approaches are intellectually exciting as well as of immense potential for development for both agricultural and human use," Prof. Essex said, drawing reference from past experiences with anti-rabies and encephalitis vaccines.

Stating that AIDS was not the last of incurable diseases man-

kind would suffer from, he urged the medical community to be prepared for tackling various other infectious agents for which the only answer would be vaccines.

The Ranbaxy Science Foundation also hosted its second annual symposium on "microbial threats to health in 21st century" which was well attended by scientists and research scholars from across the country.

### **Moot Court Competition**

"Sincerity, dedication, deep knowledge, understanding of human rights and above all the integrity on the part of the would be advocates make the backbone of successful legal professions", observed Mr H.R. Bhardwaj, Union Minister of Law, Justice and Company Affairs while inaugurating two-day XII All India Inter-University Moot Court Competition organised by Faculty of Law, Kurukshetra University, Kurukshetra, under the auspices of the Bar Council of India Trust. While starting with a nostalgic note he recalled his days as a part of this profession and how he started his profession with a humble background and reached its pinnacle. He gave practical suggestions as to the basics of legal profession and lauded the contribution of the Bar Council of India in upgrading the legal education and how eagerly he was himself monitoring and overseeing the progress under the recently enacted Legal Services Authorities Act to ameliorate the system of justice to make it fruitful to the needy and poor for dispensing justice. While advising the participants he was emphatic upon developing our ancient tradition of *Guru-Shishya parampra* (Teacher taught relationship) and shedding off materialistic approach to-

wards profession and upgrading the moral standards to make the profession worthwhile in the present context and meeting international standards in the legal profession. He stressed to the prospective lawyers that there was no substitute for hardwork, knowledge and integrity.

Mr. O.P. Sharma, Chairman, Bar Council of India, in his keynote address, gave a graphic picture of the achievements and attainments of the Bar Council of India Trust since its inception and how the trust was particular in upgrading the legal education at the grassroot level.

Professor Bhim S. Dahiya, Vice-Chancellor of Kurukshetra University, in his presidential remarks, emphasised that we should not in any way compromise on morality, integrity and above all sincerity towards the profession. He stressed the semantics of the language while honing the skills of legal profession and advocacy. He advised the advocates to be, that they should have adequate knowledge of statutes and good command over language, drafting, debating and writing that would make them a successful bright lawyer. He stressed the need to improve the standard of legal education as well as examination.

Mr. R.S. Chahal, Vice-Chairman, Bar Council of India shed some light on the role of Trust in legal education particularly since 1974 and the objectives of the Trust in upgrading legal knowledge by sponsoring legal seminars, debates and moot courts and their keen interest in the activities of model law colleges such as National Law School of India, Bangalore.

### **Orienting IGNOU Study Centre Coordinators**

A two-day Orientation Programme for the unoriented Coordinators and Assistant Coordinators of IGNOU Study Centres in Bihar was organised at IGNOU Regional Centre, Patna. The objectives of the programme were (i) to apprise the part-time functionaries regarding philosophies and methodologies of Distance Education; and (ii) to orient them for working effectively as Coordinators and Assistant Coordinators for propagation of IGNOU's programmes and for providing learners with suitable support services.

Inaugurating the orientation programme Justice S.C. Mookherjee, Vice-Chancellor of Nalanda Open University, stressed the need for providing more access to higher education for rural and disadvantaged groups. He appreciated the role of IGNOU in this regard and emphasised more co-operation and resource sharing between state open universities and IGNOU.

The topics covered in the two days' deliberations included concepts of distance education, psychological aspects of student support services, counselling and evaluation, administration and finance, and monitoring and feedback aspects.

Prof. P. Kumar of Patna University, in his valedictory address, emphasised that onus of the entire student support service in distance education lay with Coordinators and they should build a vision and deal with learners with empathy.

In all 21 participants from all over Bihar attended the programme.

## **IUCAA Associateship Programme**

The Inter-University Centre for Astronomy and Astrophysics (IUCAA) organises Associateship Programme, under which a faculty member of a university or a postgraduate department in a college can visit IUCAA for periods of short and long durations over a span of three years to develop his/her interest and expertise in astronomy and astrophysics through any of the following means (i) the use of IUCAA's in-house facilities like the specialized library, the advanced computing systems, etc towards research projects already undertaken, (ii) discussion with IUCAA's core academic staff, post-doctoral fellows and visiting experts for teaching and research assignments as well as joint projects, (iii) participation in observational programmes in national and international astronomical facilities, and data reduction, (iv) carrying out R & D activities in astronomical instrumentation; and (v) joint research projects with members of other universities/post-graduate colleges

IUCAA invites applications, on plain paper, for the seventh batch of associates for the tenure starting from July 1, 1996 to June 30, 1999. The applicants should forward their application through the heads of their departments/institutions, along with their biodata, list of publications and a brief write-up on the work they intend to carry out as associates of IUCAA, to the Coordinator, Core Programmes, IUCAA, Post Bag 4, Ganeshkhind, Pune 411 007, so as to reach before April 30, 1996. In addition, each applicant should arrange for two experts in the field to send their confidential assessment directly

to the above address. Those who had applied last year are requested to update their application. The selected candidates will be informed by June 15, 1996.

## **Yoga Training Centre at Gujarat Vidyapith**

The Gujarat State Education Minister Shri Nalin Bhatt inaugurated the newly built Yoga Centre in Gujarat Vidyapith which was founded with the support of the UGC under UGC scheme to promote Yoga Education among university students. Prof. Ramlal Parikh, Vice-Chancellor, Gujarat Vidyapith presided over the function.

Mr Bhatt said that the State Government had taken the decision to impart Yoga education to schoolchildren from March, 1996. Affirming the leading role of Gujarat Vidyapith in several social and developmental activities, he appealed for cooperation of the Vidyapith and other reputed Yoga institutes to train the teachers for Yoga Education. He stressed the need for making education comprehensive by integrating physical, mental and spiritual aspects along with moral education and inculcating patriotic spirit.

Prof. Parikh, in his introductory remarks, said that Vidyapith was the first in India to impart Yoga Education to university students. He said, education was a means for all round development of individual and Yoga Education could help a lot to achieve this. He welcomed the proposal of the Education Minister to cooperate with the state government to impart training of Yoga to the teachers of high schools.

Former Education Minister Shri Navalbhai Shah said that the role of Yoga was vital for main-

taining peace & harmony in human life and family.

The Yoga Centre of the Gujarat Vidyapith has established collaboration with Kaivalyadham Lonavala Institute of Yoga studies.

## **Information Technology Applications to Library and Information Services**

The National Centre for Science Information at IISc, Bangalore has announced a regular one year training course for library professionals starting in October each year. There are six seats and the participants will undergo two semesters of class and assignments in six months, two projects (major & minor) and hands on training tasks.

The eligibility criteria for the programme includes masters degree in library science or post-graduate in science with bachelor's degree in library science.

Unsponsored candidates will be given a stipend of Rs. 1800 per month and participants get trained in IT applications, MIS & Database systems, Information processing and retrieval, library automation, Internet, programming in 'C', and IT management in libraries. The faculty will guide the trainees through all advanced IT systems presently in vogue all over the world.

For further details, write to the Chairman, National Centre for Science Information, Indian Institute of Science, Bangalore-560 012.

## **New Courses at Assam Varsity**

Assam University proposes to introduce six more postgraduate courses, in physics, chemistry, life science, ecology, mass

communication and the fine arts, in its next academic session beginning in July. With this, the two-year-old university will have 18 departments. This was revealed by the Vice-Chancellor, Dr J.B. Bhattacharjee in Silchar recently.

Dr Bhattacharjee said the university would concentrate on socially-relevant, non-conventional and job-oriented courses apart from the traditional disciplines to cater to the marketing needs of a liberalised economy. Courses in tea and petroleum production were likely to be introduced shortly, the Vice-Chancellor added.

### **Dr. Mitra Re-elected**

Dr. C R. Mitra, former President, AIU and currently Education Advisor, NIIT Ltd, New Delhi has been re-elected as a member of the Council of Consultant Fellows of the International Institute for Educational Planning, Paris, France for a period of two years from 1st January 1996.

Dr Mitra is the sole representative from India on the Council of Consultant Fellows of IIEP.

The International Institute for Educational Planning (IIEP) is an international centre for advanced training and research in the field of educational planning. It was established by UNESCO in 1963 and is financed by UNESCO and by voluntary contributions from Member States.

The Institute's aim is to contribute to the development of education throughout the world, by expanding both knowledge and supply of competent professionals in the field of educational planning. In this endeavour the Institute cooperates with interested training and research organisations in the Member States.

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## **News from Agricultural Universities**

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### **Kisan Mela at Parmar University**

Dr Y S Parmar University of Horticulture and Forestry, Nauni organised second Kisan Mela to attract the farming community of the state towards improved farm technology in the field of horticulture, forestry and allied disciplines. Over 8 thousand people from different parts of the state participated.

Inaugurating the Mela, Shri Virbhadra Singh, State Chief Minister, called for launching of a comprehensive movement to convert apple state of the country into the fruit bowl of India. He advised the farmers, scientists, planners and policy makers to shun monoculture and adopt diversification of horticulture economy for the regular income of the farming community because one crop can fail at any time and create problems for the farming community. He announced that the state government would give incentives for the promotion of floriculture and herbiculture and trained experts would be appointed in all the developmental blocks in the state to educate people.

Mr. Singh appreciated the efforts made by the University in promoting teaching, research and extension education activities to benefit the rural poor. He said that the government was committed to raise the economic status of all people through various developmental programmes and make the state a model of hill development in the entire Hindu-Kush-Himalayan region of the world. He added that execution of big hydel projects and construction of

roads was a daunting task for the government because of difficult topography and climatic conditions but at the same time providing bread and butter to the poor people was not less important as the poor people could not wait for long for the prosperity to come in the state as a whole.

On this occasion, Vidhan Sabha Speaker, Thakur Kaul Singh, informed that Himachal Pradesh was producing only 1200 metric tonnes of fruit during fifties which had now gone up to 4.25 lakh metric tonnes. He felt there was further scope for improvement of fruit production in the state.

Shri Sat Pamrakash Thakur, State Horticulture Minister, said that Horticulture produce of Himachal Pradesh had been popularised in a big way by the HPMC throughout India, and revealed that during a fair in Germany the state received the orders worth Rs 3 crores for supplying fruit products to Germany.

Shri K D Sultanpuri, MP, said that the University was really fulfilling the cherished goal of Late Dr Y S Parmar after whose name the University was established to strengthen the economy and to save the ecology.

Prof L R Verma, Vice Chancellor, in his welcome address, said that the University had decided to send its scientists to demonstrate the technology in farmers fields and to spend at least 20% time in educating farmers as per ICAR mandate. He said that the University had established a

Seabuckthorn Research Station at Tabo to popularise the cultivation of seabuckthorn and to green the cold desert with this multipurpose bush. Dr Verma said that the University had established two KVKs at Rohru and Kinnaur and another KVK was in pipeline to be started in Lahaul & Spiti district of the state. He added that besides the University had also

established clinical and advisory service centres in all Regional Research Stations and two Kisan Sewa and Service Centres at Solan and Theog in the State. He said that the University had started an ambitious plan to train the unemployed rural youth in various subjects by which they could adopt their own profession and generate employment.

able to the Engineers in other professions.

## Colombo Plan Staff College Conference

Prof. S.K. Khanna, Chairman, All India Council for Technical Education recently delivered the keynote address at the Colombo Plan Staff College for Technician Education (CPSC) 12th Senior Administrators Conference held in Manila, Philippines. The objectives of the Conference were to (i) Identify the various approaches to capacity building in policy analysis and implementation; (ii) Develop the basic skills necessary for technical and vocational education and training (TVET) policy analysis and implementation; (iii) Analyse various policy issues confronting TVET in the Asia-Pacific region; and (iv) Explore policy strategies and options for policy analysis and improving the efficiency and equality of TVET.

Participants to this course were senior administrators, policy makers, or senior level personnel closely associated with the development of national policies and plans for middle level manpower in TVET systems in their respective countries.

## News from AICTE

### Pay Scales of Teachers in Technical Institutions

The All India Council for Technical Education (AICTE), in consultation with the Government of India, has appointed a Committee to review the scales of pay of teachers in Engineering Colleges, Technological Institutions and Polytechnics.

The terms of reference of the Committee are

i) To review the implementation of the previous decision of Government of India/AICTE under the scheme of revision of pay-scales of Teachers, Librarians and Physical Education Instructors in Engineering Colleges and other Degree level Technical Institutions including Architecture, Town Planning, Management, Pharmacy, Applied Arts and Crafts Institutions as well as Diploma level Institutions and in the process, to evaluate the extent to which the earlier recommendations in relation to qualifications, service conditions, pay scales, etc. have been implemented.

ii) To examine the present structure of emoluments and conditions of service of Teachers, Librarians and Physical Education Instructors of Engineering Colleges and other Degree level Technical Institutions, Diploma level

Institutions, etc taking into account the total package of benefits available to them (such as superannuation benefits, medical, housing facilities, etc.)

iii) To examine the present status of the Quality Improvement Programmes for the training/retraining of teachers and to suggest improvements/measures and to make these attractive.

iv) To make recommendations on the above having regard to the need for improving the quality of technical education, the necessity of attracting and retaining talented teachers to the above categories of persons having regard to the benefits/perks avail-

## News from UGC

### Countrywide Classroom Programme

Between 1st March to 7th March, 1996 the following schedule of telecast on higher education through INSAT-ID under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 6 00 a.m. to 7 00 a.m. and 1 00 p.m. to 2 00 p.m. The programme is available on the TV Network throughout

the country.

**1st Transmission**  
**6.00 a.m. to 7.00 a.m.**  
**2.3.96**

"Starfinder - Part XIV :  
Rotational Energy"

"Women in Profession -  
Architecture"

"Monkeys at Tughlakabad  
- Part I"



**3.3.96**

"Finding oneself with Sue Weston - Part I"

"Puppetry and Communication: The Living Art - Part 2"

"The Week Ahead"

**5.3.96**

"Biogas - Wealth and Waste"

"Manuscriptology - Part 1"

"Mutation Breeding in Plants"

**7.3.96**

"Searching the Frontiers - Part III : The Wonder Wire"

"Issues in Higher Education - Part I"

"Achieving the Best"

**Ind Transmission**

**1.00 p.m. to 2.00 p.m**

**1.3.96**

"Cricket"

**2.3.96**

"Cricket"

**3.3.96**

No Telecast

**4.3.96**

"Cricket"

**5.3.96**

"Cricket"

**6.3.96**

"Cricket"

**7.3.96**

"First Aid for Roadside Accidents"

"Rasa Ranjita : Understanding Indian Dance - Part III : Kuchipudi"

"Blooming Bud-Priyanka Sacheti"

**Hindi Telecast**

**प्रातः 6.00 से 6.30 बजे तक**

**1.3.96**

"राग संगीत - भाग 5"

**4.3.96**

"राग संगीत - भाग 6"

**6.3.96**

"महात्मा गांधी : फोटो फीचर"

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## **News from Abroad**

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### **Distance Learning for a Changing World**

The International Institute for Educational Planning (IIEP), in co-operation with UNESCO's Learning Without Frontiers programme, proposes to organise a workshop on the Planning, Design and Management of Distance Learning for a Changing World in Paris on 10-14 June 1996.

The workshop has been designed to give educational administrators, policy makers and managers an overview of the skills and techniques essential for the planning, design and management of distance-learning systems and an insight into the potential and limitations of these systems. It has been designed to address the needs of senior civil servants, chief executive officers, senior administrators of large institutions, and those likely to take charge of departments or institutions where distance learning is under consideration as an element of the educational delivery system.

The workshop will focus on the development of skills that relate to such areas as curriculum design, product delivery and quality control, while at the same time insights will be developed on questions relating to system design and optimization. Interactive workshop techniques and group seminars will be used to explore the experiences of top administrators and academics who have applied the concepts of distance learning to a wide variety of educational and social environments at different educational levels. This format will allow

participants both to learn something of the formal structure of distance-learning institutions and to question the validity of the structural models now in use, so being able to make policy judgements

The workshop will cover a wide range of course topics, structured around four perspectives : the fundamentals of distance education; systems structure; the costing of projects; and pointers for success or failure. These topics will include (i) *Policy* issues in distance education development; (ii) *Planning* strategic planning for distance education, needs assessment and market analysis; media choices (including new information technologies); institutional framework, budgeting and funding, (iii) *Design* curriculum development and the market (product, price, place, promotion), curriculum design and evaluation of learning, quality assurance and quality control, critical success factors, (iv) *Delivery* development, production and distribution of materials and services, (v) *Management*, system evaluation and control - organizing for success, management structures; staff development; service management (student services and customer care); and (vi) *Cost-structure*, cost-efficiency, cost-effectiveness, cost-benefit.

Further details may be obtained from John Hall, Chief, Communications International Institute for Educational Planning 7-9 rue Eugene-Delacroix - 75116 Paris - France.

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## BOOK REVIEW

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### A Significant Contribution

S.K. Gupta\*

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**L.C. Singh, Ed. Multiple Models of Teaching for Educators. New Delhi, Vikas Publishing House, 1995. Pp. 192. Rs. 225/-.**

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There has been an explosion in knowledge in various academic fields and in the number of learners at different intellectual levels. The needs of the learners differ and they require different kinds of treatment, different types of programmes of learning and methods of teaching suited to their intellectual development. Many attempts and researches have been completed to devise and develop various kinds of approaches, strategies of teaching and methods of learning. These attempts have been systematically arranged in the form of teaching models providing guidelines to the educators to systematise teaching-learning process. The famous books — *Models of teaching* by Joyce and Weil, *Models and Methods of Teaching* by Brady, L. have been the pioneering works in this direction.

The present book '*Multiple Models of Teaching for Educators*' is an extension of the work in the field of models of teaching in the context of Indian conditions. L.C. Singh has contributed significantly by compiling and editing the various models of teaching by different authors. The authors have tried their best to discuss and develop the models keeping in view

the requirements of learners in Indian classroom situations. The teacher educators can very well plan their teaching based on these models for teaching various types of subjects and also for different types of learners

The following important models of teaching have been discussed in the book along with an introduction to understand and implement instructional strategies on models of teaching by the editor.

- (1) Cognitive development model
- (2) Inductive thinking model
- (3) Concept attainment model
- (4) Advance organiser model
- (5) Inquiry training model
- (6) Biological science inquiry model
- (7) Jurisprudential inquiry model
- (8) Value discussion model.

Though these models have been discussed in other books by foreign and Indian authors, the significant aspect of the present work is that the models describe and explain the arrangement and management of the process of teaching and learning in such a way that a common teacher educator can use the models effectively in his teaching in the classroom.

He can also develop learning materials for different types of learners. Moreover the models are based on the research findings of the various experts in the field. Hence the models would also be useful to the research scholars to conduct research in the field of improving teaching-learning methods and developing appropriate learning materials. It is noted that the models are quite illustrative and discuss in detail their use and applicability in Indian conditions.

There are nine chapters in the book which deals with eight different models of teaching. The first chapter details the concept, nature and historical background of the development of models of teaching. The author has systematically summarized the family of teaching models and the procedures for implementation of the models. The utility and applicability of the models in different situations has been discussed in detail. This chapter itself provides sufficient understanding about the various kinds of models. With that background, it has become easy to understand the various models discussed in the book.

The second chapter discusses the *Cognitive Development Model*. The model is developed with proper theoretical background, assumptions and suitable illustrations in support system and task analysis. The model is well supported by research studies followed by a summary in brief and review of exercises.

Chapter 3 highlights the In-

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*ductive Thinking Model* with emphasis on the objectives of the model and the various steps for its development. The important part of the model, the syntax is explained in a simple and clear way covering all its aspects. It is encouraging to find that the model has been illustrated and developed on a topic from Physical Sciences — Physical and Chemical change. Such illustrations are useful to understand and apply the model in arranging the teaching by teachers in a better way. It is helpful to the research workers in the field of educational research.

Chapter 4 explains the *Concept Attainment Model* stating clearly the objective and assumptions of the model. The model has been thoroughly explained and illustrated with the help of a lesson plan from teaching of English. The lesson plan utilizes the steps of the model and it makes to comprehend the model easily. The effectiveness of teaching by developing concepts among the learners and the use of the model is well supported by research studies. The main points of the model are summarized followed by a review of exercises.

Chapter 5 of the book describes the *Advance Organizer Model* with emphasis on strengthening acquisition and retention of new information. The theoretical background of the model has been discussed in detail followed by definition, characteristics and types of the advance organiser models. The model is discussed in detail along with an illustrative example explaining how the model can be used in developing the instructional material.

Chapter six, the *Inquiry Training Model* has been discussed by the editor emphasising the teach-

ing procedures by problem solving through discovering and questioning. The inquiry training model is a learner centred approach where the students are actively involved in framing the sequences of questions under the guidance of the teacher. The model has been well supported by research studies. The practical steps to apply the model have been clearly highlighted. It helps in training the learner for self learning.

Chapter seven deals with the *Biological Science Inquiry Model* which involves the teaching of research process in biology. This model is a parallel approach to that of scientific method for teaching of biology where the students make efforts to learn themselves through observation phenomena, identifying the problem, formulating hypothesis, conducting experiments, collecting data and drawing conclusions. The model has been described with proper steps in sequential order with the help of an illustrative example from the Life Sciences on the topic of nutrition.

The jurisprudential Inquiry Model has been discussed in detail in chapter 8 of the book. The emphasis of the model is on stimulating thinking of the learner about social policies. The model is elaborated in a comprehensive way covering the practical side with the help of a lesson plan developed on the topic "Effect of mechanisation of Society". Almost all the steps of the model have been used in the development of the lesson plan. It makes for the teachers to use the model in an easy and effective way. The author has put in efforts to systematise the steps for the usability of the model in Indian classroom conditions for teaching

and research. The dialogue between the teacher and the student has been developed with simple, relevant and brief questions. The summary of the research in this model has been presented in brief revealing the situations for the use of the model. The model discussion has been summed up followed by a review of exercises.

The last chapter deals with the *Value Discussion Model* clarifying value dilemma through analysis and discussion. The value discussion model has been presented a simple way systematising the assumptions, objectives of the model and syntax in proper phases. The application of the model has been illustrated with a lesson plan in moral education. It will provide significant guidelines to teachers for teaching of values in educational institutions. It is interesting to note that a self-appraisal test has also developed for the learners to strengthen the teaching learning process.

The book covers the multiple approaches to teach the different types of students with different needs by detailed models of teaching. The teaching of moral values, social values and learning of problem solving through discovering and questioning technique has indeed much relevance to the modern teaching in our schools and colleges. I hope the book will be quite useful to all the students of education at the graduate and postgraduate level. Besides, it will serve a guide to teacher educators in arranging their teaching and developing self-learning programmes for distance education. It would help the research scholars who wish to work in the field of methodology of teaching and programmed learning.

I wish the book reaches the hands of all the teachers and students of colleges and universities. It would be better if a students edition of the book is also available to be within the reach of a common student and teacher.

If the models of teaching are practised by the teachers in classroom, it is hoped the teaching

will surely improve. On the basis of these models, there is a need to convene seminars and workshops to give proper training to our school teachers, teacher educators and even to college teachers. The departments of education, SCERT, DIET should come forward to arrange training in these multiple models of teaching for our teachers at various levels.

The book is also supplemented with a list of latest references of books, journals and research studies which may be helpful to the readers for further studies in the field. I congratulate all the contributors, especially L.C. Singh for editing a nice publication in the area of models of teaching.

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## COMMUNICATION

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### Personalised System of Instruction

This has reference to A. Joshi and D. Shrivastava's article entitled 'Personalised System of Instruction : An Innovation in Higher Education' in *University News* of December 18, 1995

In the concluding part of their article, the authors have observed : '... Personalized System of Instruction can be successfully fitted into our conventional classroom teaching at the college level'.

It is no doubt true that in large classes consisting of hundreds of students, it is almost impossible to pay personal attention to pupils however sincere and hardworking a teacher might be. Therefore a method like PSI could be a god-send to such a teacher

I think the pivot of the method appears to be the 'printed guide to communicate information'. It is further explained that such a guide is composed of a number of separate sections or units and for each unit there is usually an introduction and a list of objectives. Those objectives have to be achieved by following the prescribed study procedure. The study procedure generally

consists of reading of notes or referring to particular parts of the textbook. This might also include problems, exercises, and practical work and finally there might be opportunities for students to take the help of self-tests.

In a nut-shell, it's a programmed self-study guide and after a student has undergone this process, if he feels that he has mastered the unit he can take the test provided by the teacher to verify if he has really mastered the unit. The test being of a short duration, the student can obtain immediate feedback from his teacher about his performance by taking it for marking to him. The teacher too can mark it within a short time

In this method the teacher is expected to (1) select and organize study material, (2) give pep talks, and (3) prescribe remedial steps in case the student faces any difficulty.

Thus it is a sort of teaching without lecturing. The role of a teacher is confined to support, encourage and guide the learner. The advantages of this method, according to the authors, are that the learner progressively masters

the subject and that he can self-pace the learning process. Moreover the attention of the learner is focused on the unit and since most of the tasks are performed by the learner it builds his self-confidence.

However, in my opinion it suffers from the following shortcomings :

(1) While the method might deepen the mastery of the subject, it prohibits broadening of outlook. During the course of the traditional lecture method, a resourceful teacher might introduce a learner to many related areas of knowledge which is not possible here;

(2) Since the learner is provided with ready made notes he may never learn the art of note taking which is an important skill to be learnt at the college level; and

(3) Finally, the learner is deprived of a live contact with a teacher who demonstrates his mastery of the subject by the traditional lecture method and is inspired to follow in his footsteps.

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# THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities

## HUMANITIES

### Philosophy

1. Konwarh, Rajee. Some philosophical issues in the Freudian psycho-analysis: A study in the philosophy of mind. Dibrugarh. Prof M Miri, Director, Indian Institute of Advance Studies, Shimla.

2. Sita Rama Raju, Gottenmukkula. The status of sabda pramana in Indian philosophy. Andhra.

### Fine Arts

#### Music

1. Sharma, Kavita. Jaissi krit Padmavat kavya mein sangitratmakta ka vishleshanatmak adhyayan. HP

### Language & Literature

#### English

1. Abraham, T V. Ernest Hemingway: A study of the concept of victory in his fiction. Nagpur Dr K J John, Dr Ambedkar College, Chandrapur

2. Amalraj, K. Bilingual education and the teaching of English as a second language in India: A case study of kendriya vidyalayas. CIEFL. Dr Karuna Kumar.

3. Bhaskar, Pramila. The plays of Edward Albee and Samuel Beckett: A study in techniques. Ravishankar Dr S B K Murthy, Principal (Retd), Saket Colony Katul Rode, SAF Rest Office, Durg.

4. Fathma, E V. The mutating hero in post fifties American fiction: A para digmatic enquiry. Calicut. Dr T K Ramachandran, Department of English, Calicut University Centre, Palayad, Tellicherry

5. Khan, Rafiq Ahmed. News paper as ELT materials. Vikram. Dr A G Khan, B14/20, Mahananda Nagar, Ujjain.

6. Kumar, Manoj Raman. Aestheticism in the poetry of John Keats. Magadh.

7. Madhu Bhushan. Aurobindonian interpretation of Shakespeare's major plays. HP.

8. Patel, Arti. A study of Shakespeare's dramatic use of the minor characters in all his plays. Durgavati.

9. Sharma, Meeta. Robert Frost's poetry : Dominant themes in Frost's poetry. Devi Ahilya Dr (Mrs) Usha Chandel, Department of English, Govt Arts and Commerce College, Indore.

10. Singh, Ajay Pal. Theme of action, suffering and illumination in the plays of T S Elliot. Jiwaji Dr J N Deshmukh, Principal, Govt Kasturba Girls College, Guna.

11. Subhash Chandran, S. Hate Love : The leit motif in the plays of Eugene O'Neill. Calicut. Dr Vayala Vasudevan Pillai, Head, School of Drama, Dr John Mathai Centre, Aranattukara, Trichur.

12. Thakur, Santosh Kumar. A multi perspective study of the major characters in Arthur Miller's five plays. HP.

#### Sanskrit

1. Adkoli, Mahesh Madhukeshwar. A critical survey of the poetic concept auctitya in theory and practice. Karnatak. Dr D N Shanbhag, Prof (Retd), 35/1, Gopalpur, Dharwad

2. Desh Bandhu. Magh ka kavya shastriya adhyayan. HP

3. Dina Nath. Bharvivirachit Kiratarjuniya : Ek sanskritik adhyayan. HP.

4. Gupta, Sudha. Concept of service in Sanskrit literature. Jammu. Dr Ved Ghal.

5. Mishra, Meenakshie. Sivalilamruta Mahakavyasya sameekhyatmak madhyayanam. Jagannath. Pt Somnath Daah, Director, Research Department, Shri Jagannath Sanskrit Vishvavidyalaya, Puri.

#### Prakrit

1. Jain, Mati Jain. Panchashtikaya ka tulnatmak evam sameekshatmak adhyayan. Veer Kunwar

#### Punjabi

1. Rajwinder Kaur. Punjabi legends and cultural importance. Jammu. Dr Devinder Singh

2. Tejinder Kaur. Gurbaksh Singh Preet Lari de navalan dee bhasa vighyanik shaili. 1995. Prof Baldev Raj Gupta.

#### Hindi

1. Bajaj, Saroj Rambilas. Amritlal Nagar ke upanyason mein vyang. Marathwada Dr N V Sharma, Reader, Department of Hindi, Dr Babasaheb Ambedkar Marathwada University, Aurangabad.

2. Chauhan, Sunder Singh. Gandivadi dharshan ke elok mein Sohanlal Dwivedi ke kavya ka mulyankan. Saurashtra Dr G I Shingh.

3. Dora, Shaileja. Nai kavita ke khand kaviyon mein astitvavadi jeevan darshan. Hyderabad. Dr Ch Ramulu.

4. Gautam, Suresh Kumar. Suryam Patham geet yatra, padyatra evam prattitayan: Vedic yug se Dwivedi yug tak. D LIT HP

5. Hishkar, Sudha. Chhattisgarh Anchal ka Hindi bal sahitya: Shri Narayan Lal Parmar ke vishesh adhyayan sahit. Ravishankar. Dr K C Jain, Prof (Retd), 364, Virdi Colony, Raipur.

6. Lakshmi, G. Rajendra Yadav ke upanyason ka sameekshatmak vishleshan. Hyderabad. Dr Ravi Ranjan.

7. Mast Ram. Usha Priyamvada ke katha sahitya mein mulya sankraman. HP.

8. Omrao Prasad. Mahan Lal Chaturvedi aur Vinayak Damodar Savarkar ke kavivhai rashtriya chetana ka

tulnatmak adhyayan. Osmania. Dr Susheela Viyapari, Department of Hindi, Arts College, Hyderabad.

9 Phulwadkar, Deenanath Sidramappa Parbhani Jila : Bhasha sarvekshan. Marathwada. Dr Rajmal Bora, 5 Maneesha Colony, Kesersingpura, Aurangabad.

10 Raje, Kashinath Gurappa Kahanikar Dr Rangeya Raghav. Marathwada. Dr Dhanraj Mandhane, Post Graduate Department of Hindi and Research Centre, Balbhum College, Beed.

11 Saxena, Madhubala Rajgarh Jile ka sahityik vritt. Vikram Dr Devi Singh Rathore, Govt College, Depalpur

12 Shaikh Babu Shaikh Fakira Chandrakant Devtale ke kavita ka mulyankan. Marathwada Dr C B Kawade, Reader, Department of Hindi, Dr Babasaheb Ambedkar Marathwada University, Aurangabad.

13 Sharma, Narayan Dutt Sirmor Janpad ke lokgeeton ka sanskritik adhyayan. HP

14 Shukla, Shiv Prasad Madhyagugeen bhaktikavya ke vicharpeksha ke alochnatmak anusheelan: Kabir, Jaisi, Sur, Tulsi ke sandarbh mein. Patel Dr R H Patel.

15 Sonnad, Kumar G. Sri Baleshouri Reddy ke samagra kritiyon ka vivechanatmak adhyayan. Bangalore Dr M Vimala, Department of Hindi, Bangalore University, Bangalore

16 Souresh Kumar Upendranath Ashk ke upanyason mein samajik yatharth ka vishleshan. HP

17 Thadhani, Metha Ram Sindhi aur Hindi ke roop prakriya ka vyatireki adhyayan. Ravishankar Dr R C Mehrotra, Prof (Retd), School of Studies in Linguistics, Pt Ravishankar Shukla University, Raipur

18 Thakur, Kashmir Singh Harivansh Rai Bachchan ke kavya mein prem aur saundarya bhavna HP

19 Vijayanarasimha, H N Adhunik vichardhara ke pariprekshya mein Ramkumar Bhramar ke upanyason ka adhyayan. Bangalore Dr M Vimala, Department of Hindi, Bangalore University, Bangalore

20 Vyas, M J Bhartiya bhashayon ke Hindi mein anudit natak pravrutigat anusheelan. Saurashtra Dr N B Pandya  
Dogri

1 Gupta, Jatinder Dogri natak dee vikas yatra, 1980 isvi tagar. Jammu Dr Veena Gupta

2 Om Parkash Dogra lok sanskriti ch anushtan parampara. Ik mulyankan. Jammu. Dr Champa Sharma  
Urdu

1 Gorikhan, Shakeelabanu Maheboobsaheb Shah Waliullah Quadri: Hayat aur qidmat. Karnatak. Dr H P Karmadi, Prof (REtd), 4th Cross, Narayanpur, Dharwad

2. Syed Tanvir Hussain Urdu tanqeed per Maghrabi tanqeed ke asarat. Bihar Dr Q A Hashmi, Prof and Head, Department of Urdu, L S College, Muzaffarpur

Assamese

1 Gohain, Jyotimala Assamiya Ramanyasik sahityar nandantattvik mulyayan. Dibrugarh. Prof N Saikia, Department of Assamese, Dibrugarh University, Dibrugarh.

2. Mahanta, Rubi. Sankardevar sahityar nandanik mulyayan. Dibrugarh. Prof (Mrs) K Deka Hazarika, Department of Assamese, Dibrugarh University, Dibrugarh.

3 Singha, N Gobinda. Assamiya aur Manipuri bibah anusthanar tulnatmak adhyayan. Dibrugarh Prof N Saikia, Department of Assamese, Dibrugarh University, Dibrugarh

Marathi

1 Kulkarni, Keshav Panipatwaril Bakhri and Panipatwaril Kadambra . Tulnatmak adhyayan. Osmania Dr Shobha Deshmuh, Department of Marathi, Osmania University, Hyderabad

2 Padgaonkar, Kanchan Suresh Mangesh Padgavankar ganchya smagra kavyacha abhyas. Marathwada Dr Suhashini Irlekar, 'Akshar', 275, Navgan Colony, Vidyanagar, Barshi Road, Beed

3 Pimpalwadkar, Jeevan Dattopant Matrabhaasha Marathi sathi madhyamik va uchch madhyamik iyattana aslelya pathyapustakanche rashtriya shaikshanik dhoran : 1986 teel Gabha ghatkanच्या sandabhani mulyamapan 1980 te 1995. Marathwada. Dr S S Bhosale, R-3/2, Reader's Quarters, Near Health Centre, Dr Bahasaheb Ambedkar Marathwada University, Aurangabad

4 Trimbak, Shelka Dhaskar. Marathi kadambrateel pradeshikata: Nivadak kadamb yanchya adhare chikitsak abhyas, 1925 te 1990. Poona Dr Anand Yadav, 5, Kalanagar, Dhankavadi, Pune

Gujarati

1 Rathor, M H Mediaevel Sant Trikam Sahiba: Critical study. Saurashtra Drv M D Bhatt

Arabic

2 Hasballah Thaib, M Contribution of Jamiah-e-Washliah in the teaching of Arabic language and literature in North Indonesia. Jamia Prof Syed Ziaul Hasan, Department of Arabic, Jamia Millia Islamia, New Delhi

Malayalam

1 Jose, M J Folk culture of Karimbela. Calicut. Dr Vishnu Namboodiri, P O Kavanthat, Ramanthali, Dist Kannur.

2. Pavithran, P. Kumarasasute Kavyajeevithathinte Darinam : Manasastraparavum thathua sastraparavumaya anuasnanam. Calicut Dr T B Venugopala Panicker, Reader, Department of Malayalam, University of Calicut, Calcutta.

3 Peyyanad, Raghavan Thaiyathile pasyathanja Sankalbam thaiyathile puravritthangal, ithiyyagal vapikangal, anushtanangal, viswasangal madodikathakal annivarje aswathichu oru padanam. Calicut Dr T P Sukumaran, Pannepara, P O Chalad, Cannannor.

Kannada

1. Denareddi, Rajashekhar Shankarappa Shanmukha Shivayogigalu: Ondu adhyayana. Karnatak Dr B V Yakkundimath, Reader, Department of Kannada, Karnatak University, Dharwad.

2. Neelanjanamath, Akkamahadevi Veerayya. Krishna-moorthy Puranikar kadambarigalu: Ondu adhyayana.

Karnatak. Dr B C Javali, Reader (Retd), Tejaswini, Kalyananagar, Dharwad.

Telugu

1. Lakshminarayana, K. Awakening of Harijans: Telugu short story. Krishnadevaraya. Prof K Enoch, Department of Telugu, Sri Krishnadevaraya University College, Anantapur.

Geography

1. Eakonarayana, Koduru. Strategies for the development of an intermediate and market town: A case study of Tadepalligudem. Andhra.

History

1. Anand, Ajit Singh. Bundelkhand mein Americi Missionariyon ke gati vidhiyon ka itihās, 1896-1947. Bundelkhand. Dr Kailash Khanna, Reader, Department of History, Bundelkhand College, Jhansi.

2. Buragohain, Labanya. Society in mediaeval Assam: Studies on caste and class structures, 16th -18th century. Dibrugarh. Dr D Nath, Reader, Department of History, Dibrugarh University, Dibrugarh.

3. Dwivedi, Rajhari. Ratanpur ka sanskritik anusheelan, 1045 se 1741 evi. Ghasidas. Dr R G Sharma, Department of History, C M Dubey College, Bilaspur.

4. Gautam, Sneha Lata. Madhya Prant mein nyaya prashasan ka ek adhyayan, 1921 se 1956 tak. Durgavati. Dr PS Mukhariya, Department of History, Rani Durgavati Vishwavidyalaya, Jabalpur.

5. Goudeller, Luther Devamitra. Archaeology of Goa with special reference to the prehistoric cultures. Karnatak. Dr Ravindra Koriahetar, Reader, Department of History and Archaeology, Karnatak University, Dharwad.

6. Jalander Reddy, G. Political movements in Hyderabad State : A case study of Medak Subah, 1901-1948. Osmania Prof K Sarojini Devi, Department of History, Osmania University, Hyderabad.

7. Lasa, Hage. Social and economic changes among the Apatanis after 1947. Dibrugarh. Prof M L Bose, Department of History, Dibrugarh University, Dibrugarh.

8. Mallikarjuna Reddy, K. Rise and fall of the Palegars in Rayalaseema. Krishnadevaraya. Prof R Vasantha, Department of History, Sri Krishnadevaraya University College, Anantapur.

9. Kamesh, K. The left movement in Andhra, 1934-56. Osmania. Dr A Satyanarayana, Department of History, Osmania University, Hyderabad.

10. Sharma, Sumita. Ratanpur Rajya ka samajik sanskritik itihās. Ravishankar. Dr R N Mishra, Reader, School of Studies in History, Pt Ravishankar Shukla University, Raipur.

11. Soodan, Surjit Singh. Socio-economic conditions of Jammu Region during Maharaja Hari Singh's rule, 1925 to 1947. Jammu. Prof Hari Om.

12. Srinivasa Reddy, Movva. Cane cultivation and sugar industry in Andhra Pradesh, 1930-60: A study of regional responses to the Government policy. Hyderabad Dr K S S Seetha.

## AGHARKAR RESEARCH INSTITUTE

### AGARKAR ROAD, PUNE 411004

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Microbiology	:	(Anaerobic and Environmental Biology, Geomicrobiology)
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Last date for receiving filled applications is 10.3.1996.

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# EDUCATION NEWS INDEX

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**A list of select articles and editorials on education from newspapers received in the  
AIU Library during January 1995**

## EDUCATIONAL PHILOSOPHY

- Rama Rao, V V B. The learning of values. *The Pioneer* 30.1.96.  
Rungeen Singh. Deterioration in values. *The Pioneer* 2.1.96.  
Sarojini Devi, P. Value oriented education through scout/guide activities. *The Hindu* 15.1.96.

## EDUCATIONAL PSYCHOLOGY

- Arthur, G F B. The rod and the child. *The Hindu* 15.1.96.  
Dandekar Bhatia, Rani. In defence of mediocrity. *The Pioneer* 7.1.96.  
Gangadhar, V. Classroom pranks. *The Hindu* 14.1.96.  
Shrivastava, Girish. One way ticket to Delhi. *The Hindustan Times* 31.1.96.

## EDUCATIONAL SOCIOLOGY

- Ahmed, Firoz Bakht. Muslims learning to be worldly-wise. *Patriot* 23.1.96.  
Mishra, Sidharth. Mission schools in Rajasthan. *The Pioneer* 30.1.96.  
Roy Chatak, Aditi. Education on wheels. *The Hindustan Times* 21.1.96.

## EDUCATIONAL POLICY & PLANNING

- A NOVEL scheme (Editorial). *The Times of India* 2.1.96.  
COMPULSORY EDUCATION (Editorial). *The Economic Times* 25.1.96.  
GOVERNMENT HAS right educational priorities (Editorial). *National Herald* 18.1.96.  
Mehta, Arun C. Long road to universal education. *The Economic Times* 13.1.96.

## EDUCATIONAL ADMINISTRATION

- Amrik Singh. Decentralisation for better learning. *Deccan Herald* 21.1.96.  
\_\_\_\_\_. Rich should pay. *The Hindustan Times* 2.1.96.  
Bhai Mahavir. The classless model. *The Hindustan Times* 9.1.96.  
GOVERNORS AS Chancellors (Editorial). *Indian Express* 3.1.96.  
Lakshman, Pushpa. Student assistance programme. *The Hindu* 30.1.96.  
LET THE schools stay (Editorial). *The Pioneer* 23.1.96.  
Madhav, K V S. All one happy family? *Deccan Chronicle* 24.1.96.  
Nagarajan, M and Kaladharan, R. Academic innovation and college autonomy in perspective. *The Hindu* 30.1.96.  
Paul, Seema. Questionable questions: Admission-interviews try to gauge social status, allege parents. *The Telegraph* 1.1.96.  
Prabhjot Singh. Schools potential deathtraps. *The Tribune*

1.1.96.

- \_\_\_\_\_. What officials have to say. *The Tribune* 1.1.96.  
Prashar, A S. Fossil case haunts Panjab University. *The Tribune* 8.1.96.  
Rajendra Prasad, R J. Not on the right course? *The Hindu* 11.1.96.  
Sinha, J B. BHU V-C's order on re-examination quashed. *The Pioneer* 9.1.96.  
Stevenson, K. Staff colleges have tough time. *The Pioneer* 30.1.96.  
Yadav, Jaiprakash Narayan. "We will provide better education" *The Pioneer* 26.1.96.

## EDUCATION & POLITICS

- Valluri, S R. Politics in science. *The Times of India* 25.1.96.

## CURRICULUM

- Bahl, Taru. Home-school linkage. *The Pioneer* 2.1.96.  
Jegathambal, K. School mathematics associations. *The Hindu* 15.1.96.  
Nair, Uma. New generation at risk. *The Hindustan Times* 20.1.96.  
Narayanan, Usha. Human rights education. *The Hindu* 23.1.96.  
Shrivastava, Girish. Vocationalisation of education. *The Pioneer* 29.1.96.  
Vasudeval, M. Mathematics. Crux of science and technology. *The Hindu* 23.1.96.  
Venkataraman, D. Right brain oriented curriculum for all round development. *The Hindu* 23.1.96.

## LANGUAGE & LANGUAGE POLICY

- Mohammad Erfan, C. Replacement of English language teaching. *The Hindu* 2.1.96.  
Mudambadithaya, G S. Have we really followed the three language formula? *Deccan Herald* 28.1.96.

## SCIENCE EDUCATION

- A BOOST for technology development (Editorial). *The Hindu* 10.1.96.  
BOOST TO technology (Editorial). *The Tribune* 6.1.96.  
Bhattacharyya, Anirudh. Ambitious plans. *The Pioneer* 24.1.96.  
BRAVING A new world (Editorial). *The Times of India* 5.1.96.  
COPING WITH change (Editorial). *Indian Express* 12.1.96.  
Gopal Raj, N and Sunderarajan, P. Pride and prejudice in Indian science. *The Hindu* 14.1.96.  
Kumbhkarni, C.M. Indian Science Congress. Challenges and opportunities. *The Tribune* 3.1.96.



Nambisan, Vijay. Fair science frowns not on their humble birth. *The Hindu* 28.1.96.

PURPOSEFUL SCIENCE session (Editorial). *The Tribune* 4.1.96.

Rao, U R. Prescription for mediocrity *The Hindustan Times* 8.1.96.

Salvi, Dalip M. Taking it to the people. *The Tribune* 3.1.96.

SCIENCE AND technology should get full support (Editorial). *National Herald* 12.1.96

Sen, Subrata. Is Science Congress relevant? *The Statesman* 7.1.96.

Swamunathan, S. Marketing science in a liberalised milieu. *The Hindu* 12.1.96.

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**BIRLA INSTITUTE OF  
TECHNOLOGY & SCIENCE**  
PILANI, RAJASTHAN-333 031

#### FACULTY RECRUITMENT ADVERTISEMENT NO. FR/1/96.

Applications are invited for faculty positions, both regular and visiting type in the areas of Management, Finance and Economics. Applicants should have good academic record and professional experience in the relevant area and would be expected to participate in teaching, course development and research. Visiting faculty would be required to make periodic visits to Pilani for conduct of classes and course development. Academic ranks & salary/Honorarium will be commensurate with qualifications, experience and time commitment. Interested candidates should apply within 20 days of the advertisement with detailed bio-data, references etc. to the Registrar, Birla Institute of Technology & Science, Pilani (Rajasthan) 333 031

PILANI

February, 1996.

REGISTRAR

# PHYSICAL RESEARCH LABORATORY

## NAVRANGPURA, AHMEDABAD 380 009

(Advt. No. 3/96)

### OPPORTUNITIES FOR RESEARCH AND TRAINING

Physical Research Laboratory, Ahmedabad, offers excellent research opportunities in various areas of Theoretical and Experimental Physics as outlined below:-

Theoretical High Energy and Particle Physics,  
Nuclear Physics;  
Plasma Physics and Gravitational Physics;  
Nonlinear Dynamics and Computational Physics,  
Laser Physics and Quantum Optics;  
Atomic and Molecular Physics.

Solar System Astrophysics and Meteorite Studies,  
Infrared and Optical Astronomy,  
Solar Physics;  
Crustal Evolution, Geochemistry and Geochronology,  
Oceanography and Palaeoclimatology,  
Atmospheric Sciences and Aeronomy

The Observational Astronomy and Solar Physics work are being carried out at Mount Abu Infrared Observatory using 1.2 meter telescope and Udaipur Solar Observatory.

Bright and highly motivated students and young scientists are encouraged to apply for research and training under the following categories -

**A. PH.D. PROGRAMME :** M.Sc. students with First Class or High Second Class Degree in Physics/Chemistry/Applied Mathematics/ Geology/ Geophysics/ Oceanography, and with Physics and Mathematics as subjects in their B.Sc. degree are selected in this programme to pursue research leading to Ph.D. degree under the guidance of Senior Scientists of the Laboratory. The Research Scholars are selected on the basis of their academic record, written test and personal interview. They will be required to undergo a course work in various topics during the first year and continuation of the research scholarship is subject to successful completion of this course work.

**B. ASSOCIATESHIP PROGRAMME :** M.Sc. students with First Class or high second class degree in Physics/Chemistry/Applied Mathematics/Geology/Geophysics/Oceanography, and with Physics and Mathematics as subjects in their B.Sc. degree are selected in this programme to do research in association with Senior Scientists in specific experimental programmes and participate in the associated theoretical/modelling activities. Research aptitude is an important desirable qualification. The candidates are selected on the basis of their academic record, written test and personal interview. They will be required to develop appropriate experimental skills and theoretical modelling capabilities as required.

The Associateship will be awarded initially for one year, but may be continued for three years depending on the progress made by the individual. A few of the selected Project Associates who do exceptionally well may be considered for suitable permanent positions in the Laboratory any time during their tenure and will be allowed to develop their future scientific career.

**C. POST DOCTORAL RESEARCH PROGRAMME :** Young Scientists with Ph.D. degree in Physics, Chemistry or any

branch of Earth Sciences and preferably having experience in these fields are selected as Post Doctoral Fellows to do research in any of the fields mentioned above. Tenure of the Post Doctoral Fellows will be for one year and is extendable for another year subject to satisfactory progress. There is a possibility of permanent absorption in PRL for meritorious and exceptionally good candidates.

#### SCHOLARSHIP/FELLOWSHIP

**A. For "PH.D. PROGRAMME":** Rs. 2800/- per month. The scholarship may be raised to Rs. 3000/- per month after two years and to Rs. 3200/- per month after four years subject to appropriate evaluation. A book allowance of Rs. 3000/- per year for each of the four years starting from the first year of Research Scholarship is provided. Selected candidates are provided accommodation in Students' Hostel.

**B. For "ASSOCIATESHIP PROGRAMME":** Rs. 3500/- per month. Hostel facilities at a nominal rent or an HRA of Rs. 650/- per month (in lieu of non-availability of Hostel accommodation) may be provided during the Associateship period.

**C. For "POST DOCTORAL RESEARCH PROGRAMME":** Rs. 4000/- to Rs. 4500/- depending on the experience plus medical care. A small furnished apartment may also be provided, but if accommodation is not available, HRA of Rs. 650/- per month will be given.

#### PROCEDURE FOR APPLICATION

##### For PH.D./ASSOCIATESHIP PROGRAMMES:

Additional information and application forms for the Ph.D./ Associateship programmes can be obtained from:

THE DEPUTY REGISTRAR  
PHYSICAL RESEARCH LABORATORY  
NAVRANGPURA  
AHMEDABAD - 380 009

Duly completed application forms should reach the above address on or before Monday, 29 April 1996.

Selected candidates called for the written test and interview from outstations will be paid to-and-fro second class railway/bus fare (whichever is less) by the shortest route from the address given in the application.

##### For POST DOCTORAL RESEARCH PROGRAMME :

The application on plain paper for Post Doctoral Fellowships containing (a) bio-data and list of publications; (b) highlights of thesis and (c) brief research proposal should be sent to:-

THE DEAN  
PHYSICAL RESEARCH LABORATORY  
NAVRANGPURA  
AHMEDABAD - 380 009

In addition, the candidate should arrange for at least two letters of recommendation to be sent directly to the above address.

Candidates called for interview from outstations will be paid to-and-fro first class train/bus fare by the shortest route from the address given in the application.

# CLASSIFIED ADVERTISEMENTS

## ALIGARH MUSLIM UNIVERSITY ALIGARH ADDENDUM

Reference Advertisement No. 4-A/95-96 dated 15.1.1996 which appeared in January 29, 1996 issue of *University News*. Post No. A-5 - Professor of West Asian Studies, - under the Qualifications - Desirable (i) & (ii) - the following be also read

"(iii) Research/Studies experience in the thrust area of 'Socio-economic developments in the West Asian littoral of Indian Ocean' "

Dr. H.A.S. Jafri  
REGISTRAR

## JAMIA MILLIA ISLAMIA (CENTRAL UNIVERSITY) P.O. JAMIA NAGAR, NEW DELHI-110 025.

ADVT NO 3/1995-96

Applications, on the prescribed forms, are invited for the following teaching & non-teaching posts so as to reach in the Office of the Asstt Registrar (Recruitment), Jamia Millia Islamia personally by 07.3.1996 and through post latest by 11.3.1996.

S No.	Department	Posts
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### TEACHING POSTS

1	Hindi	L-1 (Temp)
2	Pol Science	P-1, L-1
3	Psychology	P-1
4	Commerce	L-1
5	Polytechnic	Head of Section (Hum & Applied Scs)-1
6	Faculty of Law	P-1
7	Teacher's Trg & Non-Formal Edu.	*R-2, **L-3

### NON-TEACHING POSTS

### MINISTERIAL/SECRETARIAL POSTS

1	Accounts Officer	1
2	Asstt. Registrars	2
3	Section Officer	1

4	Accountant	1
5	Office Asstts	4
6	Personal Asstts.	4
7	Senior Clerks	11
8	Urdu Typists (Temp)	4

### TECHNICAL/EX-CADRE POSTS

9	Asstt. Editor, Dr. Z.H Instt of Islamic Studies	1
10	Sr Tech Asstt., R O	1
11	Sr Tech Asstt (Temp.), M Sc Electronics Course	1
12	Computer Operator	1
13	Tech Asstt, Cultural Activities, DSW Office	1
14	Jr. Tech. Asstt, Faculty of Education	1
15	Extension Asstt Deptt of Social Work Desirable gulfns for Sl. No.7 Degree/Experience in Nursery Education	1

16	Statistical Asstt, R O	1
17	Sanitary Inspector, R O	1
18	Sanitary Supervisor, R O	1
19	Workshop Asstt (Paper Craft), TT&NFE	1
20	Workshop Asstt (Clay Modelling & Ceramics), Deptt of Fine Arts	1
21	Sr Tech Asstt, Univ Poly	1
22	Tech. Asstts, Univ Poly	7
23	Pharmacist	1
24	Nurse	1
25	Lab Technician, Ansari Health Centre	1

### DR. ZAKIR HUSAIN LIBRARY

26	Asstt Archivist	1
27	Information Scientist	1 Temp
28	Microphotographer	1

### STATE RESOURCE CENTRE (PURELY TEMPORARY POSTS)

29	Programme Coordinator (Trg & Documentation)	1
30	Associate Programme Coordinator (Training)	1
31	Programme Associate (Training)	1

32	Programme Associate (Materials)	1
33	Research Fellow (Post-1st)	1
34	Electronic Technician Projectionist	1

**SPECIALISATION:** For Professor Psychology. Social & Environmental/Organisational Psychology. Desirable: Good knowledge of Research Method and Statistics.

Indicates \* one each in Education and Language Education.

\*\* one each in Education (Geography, Economics, Repair & Maintenance of Domestic Gadgets).

### NOTE:

- 1 All candidates who have passed NET/JRF from UGC/CSIR OR who have already been awarded Ph.D. Degree OR have submitted Ph.D. thesis by 31.12.1993 OR obtained M.Phil. degree by 31.12.1993 can apply for the post of Lecturer
- 2 Reservation exists 15% for SC, 7.5% for ST and 27% for OBC as per rule.
- 3 For technical posts, selection would be made after practical test and interview in the Lab./discipline for which the post is available
4. Knowledge of Urdu is a desirable qualification for all non-teaching posts.
5. Relaxation in any of the qualifications may be made on the recommendation of the Selection Committee in exceptional cases
- 6 A panel may be drawn for future vacancies as per rule/requirement of the university
- 7 The number of vacancies may increase/decrease than the advertised post(s) at the time of selection committee meetings.
- 8 Candidates must enclose the attested copies of degrees, diplomas and marks-sheets etc giving references of publication work with the application form. Incomplete application OR Application on plain paper is liable to be rejected. The university will not be responsible for any postal

delay in case of receipt of application forms and issue of interview letters.

9. Those candidates who have already applied for any of the above teaching & non-teaching posts against the following advertisements need not apply again. They may, however, submit the additional information on the prescribed proforma before the last date.

3/88-89, 1/89-90, 2/Estt /89-90, 2/90-91, 1/91-92, 2/91-92, 3/91-92, 1/92-93, 1/93-94, 2/93-94 and 1/94-95

The prescribed application forms together with detailed information/qualifications with pay scales can be had from the Recruitment Cell, Registrar's Office, Jamia Millia Islamia during working days either personally from 10 00 a.m. to 1:00 p.m. OR by sending a self-addressed stamped envelope worth Rs. 2/- (ordinary post) and Rs. 8/- (for Registered post) with the payment of Rs. 50/- (Rs. 20/- for SC/ST candidates) non-refundable through Indian Postal Order/Bank Draft drawn in favour of J.M.I. OR through Cash Receipt.

Dated: 08.2.1996 Prof. Mohd. Miyan  
OFFG. REGISTRAR

## **PUNJABI UNIVERSITY PATIALA**

Advt No 114/PRO/Rect.96

Applications on the prescribed form are invited for the following posts so as to reach the Deputy Registrar (Establishment) by 4th March, 1996

**1 Professor:** Philosophy-1, Geography-1, Punjabi (CC)-1, English (CC)-1, Maharishi Valmiki Chair-1 (Purely Temporary), Anthropological Linguistics-1, Sanskrit-1, Social Work-1

### **Specialisations**

**Philosophy:** Social & Political/Contemporary Western Philosophy. Punjabi (CC): Any area related to Punjabi Literature & Language. Preference will be given to those having experience in Correspondence Courses.

**English (CC):** Indian Writing in English/Modern American Fiction/Modern British Fiction/Literary Criticism.

### **Desirable :**

Teaching experience in Correspondence Courses.

**Maharishi Valmiki Chair:** M.A. & Ph.D. in Classical Sanskrit Literature. Established research work on Maharishi Valmiki and his Epic 'Ramayana'.

**2. Readers:** Pharmaceutical and Drug Research-1, Computer Science & Engineering-3, Defence & Strategic Studies-1, Economics-1, Punjabi (Regional Centre Bathinda)-1 Computer Application (Damdama Sahib)-1, Business Management (Damdama Sahib)-1, Library & Information Science-1, Law (Regional Centre Bathinda)-1, Hindi-1, and Journalism & Mass Communication-2.

### **Specialisations:**

**Pharmaceutical & Drug Research:** Pharmaceutical Chemistry/Pharmaceutics/Pharmacology

**Computer Sc. & Engineering:** Software Engineering, Computer Graphics, Computer Network, Artificial Intelligence, DBMS, Distributed Computing, Parallel Computing, Operating Systems, Neural Network, Operations Research, Object Oriented Programming, Computer Hardware

**Defence & Strategic Studies:** Defence & Strategic Studies

**Economics :** Economics of Agriculture, Money & Banking, Public Finance, Economics of Industry Quantitative methods and Computer Applications.

**Journalism & Mass Comm.** Mass Communication/Communication Research/Developmental Journalism/Electronic Media

**Punjabi (Regional Centre Bathinda):** Drama/Fiction/Poetry/Literary Criticism.

**Computer Application (Damdama Sahib).** Accounting and Finance Library & Information Sc: Desirable. Computer Applications in Libraries and Information Systems.

**Business Management (Damdama Sahib):** Marketing

**Hindi:** Hindi Novel with special reference to Punjabi Life and Culture.

**3 Reader/Editor (Punjabi Koahakari)-1.**

MA in Punjabi or Linguistics, Ph.D with sound knowledge and experience about basic principles of Lexicography.

**4 Lecturers:** Computer Science & Engineering-2 (including one leave vacancy), Botany-1, Biotechnology-2, Music (Vocal)-1, Public Administration-1, Philosophy-1, Zoology-1, Fine Arts-1, Business Management (Damdama Sahib)-1, Theatre & TV-1, Training & Orientation Centre-1, Devel-

opment of Punjabi Language-2, Commerce (Damdama Sahib)-1, Urdu (Malerkotla)-1, Hindi (CC)-1, Defence and Strategic Studies (CC)-1, Computer Application-1.

### **Specialisations :**

**Botany:** Candidate with following specialisations will be preferred. Plant Physiology/Phycology/Mycology/Cytogenetics/Environmental Botany, Angiosperm Taxonomy/Forestry

**Biotechnology:** Cereal Technology, Fruit and Vegetable Technology/Meat Technology/Food Engineering or Dairy Technology/Microbial Technology.

**Desirable :** MSc/M Tech and Ph.D in Food Science & Technology/Biotechnology/Food Engineering. Or

MSc/M Tech & Ph.D in Dairy Science & Technology/Microbiology/Biotechnology.

**Philosophy:** Logic/Indian Philosophy.

**Zoology** Animal Physiology/Cytogenetics/Entomology/Paracytology.

**Fine Arts:** i) MA in Fine Arts

ii) Five Years Degree in Printing with Graphics as a subject Theatre & TV Mime and Movement/Indian Drama/Stagecraft Training & Orientation Centre The Selection Committee may relax the prescribed qualifications in the case of persons(s) otherwise extremely qualified and widely experienced in the field of Youth Work/community work training

### **Desirable :**

i) The candidate should not be more than 40 years of age

ii) At least two years experience in Organising NSS/other youth programmes.

iii) Any additional qualification and experience in Youth work/Social work, Publications, research and experience as Trainer. Development of Punjabi Language First Post.

i) MA Linguistics

ii) Candidate should have specialisation in the field of Folklore & Culture & have experience in editing, preparation of press copies of manuscripts and publications.

### **Second Post (Life Sciences):**

i) At least two years research experience.

ii) Sound knowledge of Punjabi Language.

iii) Should have experience of editing, preparation of press copy and publication. Urdu (Malerkotla) Desirable: MA in Persian.

Hindi (CC) Medieval Hindi Poetry/Linguistics

Business Management (Damdama Sahib), Marketing.

**5 Map Curator (Geography)-One.** (Rs 2200-4000) (UGC)

1 MA/MSc (Geography) with at least 55% marks.

2 Reasonable understanding of layout, designing and planning.

3 Experience as a Map Curator in any post-graduate department /research institutions preferred

6 Pre-Examination Training Centre for Competitive Exams

For SC/ST Students

a) **Director-Cum-Professor** One (Temporary)

Qualification: Same as Prescribed by UGC for the post of professor Desirable: Preference will be given to candidate holding suitable administrative experience in Educational Administration

b) **Reader Co-Ordinator** One (Temporary)

Qualification:

i) MA & Ph D in any Social Science subject

ii) Other qualification same as prescribed by UGC for the post of Reader

Preference will be given to SC/ST candidate

Experienced teachers working in any Government/recognised educational institution in the State could also be considered for appointment on deputation

**7 Assistant Librarian :** (Damdama Sahib)-One (Rs 2200-4000)

i) National level test conducted by the UGC or any other approved agency

ii) Master's degree in Library Science/Information Science/Documentation or an equivalent professional degree with at least fiftyfive per cent marks or its equivalent grade and consistently good academic record, Or

Master's degree in Arts/Science/Commerce or equivalent degree with at least fiftyfive per cent marks or its equivalent grade with Bachelor's degree in Library

Science/Information Sc. Documentation or an equivalent professional degree with atleast fiftyfive per cent marks or its equivalent grade plus consistently good academic record

**8 Technical Assistant (Psychology)-One** (Rs 2200-3900)

MA Psychology with at least 50% marks and Diploma in Guidance and Counseling

Specialisation: Psychological Testing.

**9 Assistant Security-cum-Transport Officer-One** (Rs 2000-3500)

i) Ex-short Service Commissioned Officer of the rank of retired Captain/Major, preferably from EME/Armed Corps/Artillery

ii) Driving and Maintenance (D&M) Course/Technical Course by EME Office and Diploma in Industrial Security and Safety Management

iii) Excellent record of service with experience of maintenance of transport, security arrangements and administration for ten years

**10. Technical Assistant (Social Work)-One** (Rs 2200-3900)

MA (Social Work) at least IInd class with 3 years experience OR

BA with 5 years experience OR

Diploma (3 years) from a recognised Institution with 7 years experience

Note - 1 The required experience is to be in the line of speciality suiting job requirements

2 The Selection Committee will have the power to relax the condition regarding experience in the case of an otherwise suitable candidate

**11 Technical Assistant (Lexicography)-One** (Rs 1800-3200)

i) MA (Sociology) or Linguistics, with 55% marks and Bachelor's Degree with 50% marks

ii) M Phil/M Litt (Sociology or Linguistics)

iii) Should have passed Punjabi as one of the subject in Bachelor's degree.

Preference will be given to the candidate who has ability to collect field data with knowledge and experience in Lexicography.

**12 Technician Grade-1 One** (Reserved for SC) (Rs 1650-2925),

Master's degree in Computer Science &

Application or B.Tech (Computer Science & Application) or IInd class Science graduate with Diploma in Computer Software Sciences or graduate with two years experience of Computer Software in a recognised organisation.

Data entry speed English-40 WPM, Punjabi-25 WPM

Desirable: 1 One year's experience of working in an Educational Institution

2 Knowledge of Computing examination results.

**13 Semi Professionals-Two** (Reserved for SC) (One each for Malerkotla and Bathinda) (Rs 1650-2925).

1 IInd class Graduate

2 IInd class B.Lib Sc/Post Graduate Diploma in Library Science or an equivalent examination

3 English Typing speed of 30 WPM.

Preference will be given to those who have experience of Indexing/Zeroxing/Preservation and Archives

For the post of Malerkotla, preference will be given to those who possess knowledge of Urdu

**14 University Senior Secondary Model School:**

(a) **School Lecturer Economics-1** (Reserved for SC/ST) (Rs 1800-3200)

MA Economics with BT/BE

(b) **School Lecturer Physics-1** (Rs 1800-3200)

MSc Physics with BT/BE

(c) **Trained Graduate Teachers-3** (Eng-1, Hindi-1, SS-1) (Rs 1650-2925)

BA with combination of subjects as approved by the Punjab Govt. from time to time and SSTC/BT/BE or Sr Basic Trained

(d) **Trained Graduate Teacher (Math-1)** (Rs.1650-2925)

BA with Math as elective subject and BT/BE OR

Bachelor Degree with Physics and Math 'A' Course and SSTC/BT/BE or Senior Basic Trained

(e) **BSc/BE Teacher-1** (Reserved for SC/ST) (Rs 1650-2925)

BSc (Non-Medical) and SSTC/BT/BE or Senior Basic Trained

(f) **Physical Trained Master/Mistress (DPE)-1** (Reserved for SC/ST) (Rs 1650-2925)

Graduation and degree or Diploma in Ad-

vance Physical Training Course.

(g) Physical Training Instructor (PTI)-1 (Rs 1500-2700)

Matric and Certificate Course in Physical Education from a recognised Institution/Board or Training as Instructor in National Discipline Scheme.

(h) Tabla Player-1 (Leave Vacancy) (Rs 1500-2700)

(a) Atleast Bachelor's degree in Sangeet Vashard in Tabla with at least three years experience in an recognised educational institution as Tabla Accompanist.

(b) Candidate should possess knowledge of vocal music and Punjabi.

(i) Band Master-1 (Rs 1500-2700)

BA, DPE/BPED-IInd division

Proficiency in Band and experience in any recognised Senior Secondary School/Govt School

Preference will be given to a retired Military Band Master.

15. Assistant Public Relations Officer: One (Rs 2000-3500)

Second class Graduate or MA preferably in Punjabi with experience of about 3 years in journalism. Preference will be given to those having training in journalism.

Note:

1 For the Post of Technician Grade I, if no suitable candidate belonging to SC/ST is available, the post could be filled from amongst candidates belonging to general category

2. Candidates who had earlier applied for any of the posts mentioned above, in response to any previous advertisement must make application afresh.

3 The teaching posts carry UGC pay scales. Only specialisations/desirable qualifications have been given in this advertisement. Detailed qualifications as prescribed by the UGC/Syndicate will be supplied alongwith the application form.

4. Candidates must have passed Punjabi in Matriculation Examination or passed Punjabi Prabodh or Punjabi Praveshika Examination. However, if suitable candidates with requisite qualifications in Punjabi are not available the selected candidates shall have to pass any of these examinations within two years.

5. Incomplete applications and those received after the last date shall not be entertained.

6. The eligibility of every candidate will be determined on the basis of qualifications acquired by him upto the last date fixed for receipt of applications.

7. It is not obligatory to call every candidate for interview who possesses the essential qualifications.

8. The number of posts can increase/decrease.

Application forms can be obtained from the Head, Publication Bureau, Punjabi University, Patiala-147 002, on payment of Rs 30/- for teaching posts and Rs 20/- for non-teaching posts, at the counter or by sending a Demand Draft in favour of the Registrar, alongwith a self-addressed envelope (25-x 10 cms) affixed with postage stamps worth Rs 10/- for teaching posts and Re 1/- for non-teaching posts and indicating on it the name of the post applied for.

REGISTRAR

### S.N.M. TRAINING COLLEGE MOOTHAKUNNAM P.O.

#### WANTED

I. S.N.M. COLLEGE, MALIANKARA,  
P.O. Maliankara, Via: Moothakunnam,  
Pin. 683516 Kerala.

(a) Lecturer in Mathematics 4 vacancies (1 & 3 Open Merit and 2 & 4 Community Merit)

(b) Lecturer in Economics 1 vacancy (Open merit)

The candidates appointed will not have any claim for appointment in the U.G.C. scheme and they have to teach at the Pre-Degree level and will go to the Pre-Degree category in the state scale of pay.

II. S.N.M. TRAINING COLLEGE,  
MOOTHAKUNNAM  
P.O. Moothakunnam, Pin 683516,  
Kerala.

(a) Lecturer in Malayalam Education — 1 Vacancy (Open Merit)

(b) Lecturer in Physical Science Education — 1 vacancy (Community Merit)

The above posts are subject to sanction by the Mahatma Gandhi University, Kottayam, Kerala State.

Age and qualification as prescribed by the Mahatma Gandhi University, Kottayam, Kerala State and the U.G.C.

Application forms can be had from the Principals of the respective colleges on payment of Rs. 100/- or Rs. 107/- by M.O. Postal Orders or DD will not be accepted. Apply to the Manager within one month from the date of notification. Those who have appeared for qualifying examination can also apply.

MANAGER

### SHREE DAMODAR COLLEGE OF COMMERCE AND ECONOMICS

Tansor, Comba, P.B.No. 347,  
MARGAO-GOA

Applications are invited for the post of FULL TIME LIBRARIAN - 1 post. The post is reserved for candidates belonging to Scheduled Castes/Scheduled Tribes. If no suitable candidate is available from these categories, candidate from General Category will be considered for appointment temporarily as per the rules.

Qualifications:

i) Qualifying the national level test conducted for the purpose by the U.G.C. or any other agency approved by the U.G.C.

Desirable:

M. Phil/Ph.D degree in Library Science/Information Science/Documentation/Archives and Manuscript.

ii) Master's Degree in Library Science/Information Science/Documentation or an equivalent professional degree with at least fifty five per cent marks or its equivalent grade plus a consistently good academic record, OR Master's Degree in Arts/Science/Commerce or equivalent degree with at least fifty five per cent marks or its equivalent grade with Bachelor's degree in Library Science/Information Science/Documentation or an equivalent professional degree with at least fifty five per cent marks or its equivalent grade plus a consistently good academic record.

Scale of Pay: Rs 2200-75-2800-100-4000 plus admissible allowances as per rules

Terms and conditions of service are those laid down by the Goa University/Directorate of Education, Govt. of Goa and other competent authorities.

Persons who are already employed should send their applications through proper channel. Break in service if any, should be accounted for.

Interested candidates should apply giving full details of academic qualifications from SSCE onwards clearly indicating the subjects offered, marks scored and class/division obtained at all Public Examinations, Experience, address, date of birth, etc.

True copies of marks statements and certificates of all Public Examinations passed should be enclosed.

Applicants should attach true copy of caste certificate if applicable.

Applications duly completed should reach the Principal within 15 days.

D.V. Burkar  
PRINCIPAL

2.2.96



# INDIAN COUNCIL OF MEDICAL RESEARCH

Applications are invited upto 20th March, 1996 for the post of Directors under the following Council's Institutes/Centres :-

**1. AT THE ENTEROVIRUS RESEARCH CENTRE, BOMBAY-** This Centre is engaged in Scientific Research on poliomyelitis and other enteroviruses. The Centre has facilities for laboratory and clinical studies. **Qualifications & Experience : Essential** - M D /Ph D/D.Sc or equivalent postgraduate qualification in Virology/Microbiology or related discipline with research/teaching experience of 15 years in the field of Virology with original work to the credit of the candidate and experience in disciplines related to Enteroviruses. Original work as evidenced by publications. **Desirable** : Administrative/Managerial experience in responsible positions. **Job Requirements** : It is a top research management post in the field of virology. The Director is required to provide high level leadership in the formulation of research programmes and projects and in organising/co-ordinating team work involving epidemiological and virological research on poliomyelitis and other enteric viruses. He/She will have the overall responsibility for the working of the centre within the framework of the council.

**2. AT THE REGIONAL MEDICAL RESEARCH CENTRE, DIBRUGARH-** This Centre is engaged in carrying out research studies on regional health problems like Malaria, Japanese encephalitis, haemoglobinopathy, nasopharyngeal cancer and allied conditions. The Centre has facilities for conducting clinical and laboratory studies. **Qualifications & Experience : Essential** : (i) MBBS with a doctorate in Medicine/Pathology/Microbiology/Public Health or related disciplines with 15 years research/teaching experience in the areas listed above, (ii) Original work as evidenced by publications. **Desirable** : Administrative/Managerial experience in responsible positions. **Job Requirements** : It is a top research management post and the Director is expected to provide high level leadership in the identification, formulation of R&D programmes and also to formulate and successfully implement research programmes of the centre and coordinate with other agencies for health and research activities. He/She will have the overall responsibility for the work of the centre within the framework of the ICMR system and for ensuring an atmosphere conducive for the creative work.

**3. AT THE INSTITUTE FOR RESEARCH IN MEDICAL STATISTICS, MADRAS-** This Institute is engaged in research work on Biostatistics, Epidemiology and also Clinical trials of drugs including traditional remedies. Advanced computer facilities are available at the Institute. **Qualifications & Experience : Essential** : (i) Doctorate or equivalent degree in Biostatistics/Epidemiology/Public Health from a recognized University. (ii) Experience of 15 years in formulating/guiding/implementing research/teaching in Biostatistics/Epidemiology/Public Health/Clinical trials. (iii) Original work as evidenced by publication of research papers in reputed scientific journals. (iv) Managerial experience in responsible position. **Desirable** : Experience in clinical/epidemiological studies on diseases/remedies of national importance/relevance. Knowledge of computer oriented statistical systems including their application to epidemiology/clinical trials. **Job Requirements** : This is a top research management post and the Director is expected to provide high level leadership in the identification, formulation of R&D programmes and also to successfully implement research programmes of the Institutes and to interact with sister agencies/Institutes for epidemiological and biostatistical research. He/She will have the overall responsibility for the work of the Institute within the framework of the ICMR system and for ensuring an atmosphere conducive for the creative work.

**SALARY/CONDITIONS OF SERVICE** The scale of pay of the above post is Rs 5900-200-6700 plus allowances as per Central Govt. Rules. Medical aid and leave travel concession are admissible to the employee and his/her dependent family members as per Central Govt. Rules.

**AGE** Below 50 years. **SC/ST candidates** are allowed relaxation in accordance with Central Govt. Rules in force. Benefits of pension are admissible as per rules in force. Private practice is not allowed. However non-practising allowance @ Rs 950/- p.m. on pay upto Rs 5999/- and Rs 1000/- p.m. on pay of Rs 6000/- and above is admissible to medical graduates only as per rules of the Council. Application forms can be obtained from the office of the Director General, Indian Council of Medical Research, Ansari Nagar, Post Box No. 4911, New Delhi-110 029. The completed application form accompanied with crossed Postal Order(s) for Rs. 8/- (Rupees Eight Only) payable to D.G. ICMR should be sent to the Director General at the above address. SC/ST candidates are not required to pay this amount. Applications without postal order will not be entertained. Candidates called for personal discussion will be paid 1st class rail fare by the shortest route. No TA/DA is admissible for joining the post or on termination of appointment. Applications from the employees working under the Central/State Govt., Semi Govt. and Govt. controlled undertakings should be sent through their employer and should be received before the closing date alongwith the certificate of the employer that the applicant will be relieved within three months of his/her receipt of appointment orders. Advance copies will be considered subject to the condition that a 'No Objection Certificate' from the employer is produced at the time of personal discussion. Applications received after the closing date will not be considered. The name of the post applied for must be indicated on the application. Incomplete applications will not be entertained. Candidates called for personal discussion have the option to answer in Hindi also. The Council reserves the right to short-list the applicants to be called for personal discussion. Any canvassing by or on behalf of the candidates or bringing political or other outside influence with regard to the selection/recruitment shall be considered a DISQUALIFICATION.



# NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

HATIA: RANCHI-834 003.

(A Govt. of India Society Under Ministry of HRD/AICTE)

## ADMISSION NOTIFICATION - 1996

- |  |                        |
|--|------------------------|
| 1. B.Tech. (Manufacturing Engg.)                 | 4 years Degree course. |
| 2. M.Tech. (Manufacturing Engg.)                 | P.G. Degree Course.    |
| 3. M.Tech. (Foundry-Forge Technology)            | P.G. Degree Course.    |
| 4. Advanced Diploma in Foundry /Forge Technology | 18 months duration.    |

### ELIGIBILITY:

1. B.Tech. (Mfg. Engg): 10+2 stage of 10+2+3 System or equivalent with Physics, Chemistry, Maths. and English. Maximum Age limit : 21 years as on 1.10.96 (relaxable by 5 years for SC/ST).
2. M. Tech. (Mfg. Engg): Bachelor's degree in Mech./Met./Manufacturing/Prodn./Electrical/Aeronautical/Chemical/Industrial Engg with valid GATE score
3. M.Tech.(Foundry-Forge Tech.): Bachelor's degree in Mech./Met./Prodn Engg or equivalent with valid GATE Score. (for 2 & 3 sponsored candidates who are not qualified at the GATE may also be considered provided they have secured 55% marks in qualifying examination and have 2 years relevant experience. Preference will be given to sponsored candidates who are GATE qualified. However, sponsored candidates will not be eligible to receive scholarship).
4. Advanced Diploma (Foundry-Forge Technology): Passed diploma in Met./Mech./Prodn. Engg. conducted by State Board of Technical Education or B Sc. with Physics, Chemistry, & Mathematics.

### APPLICATION FORM & INFORMATION BROCHURE:

Application forms and other details may be obtained from the Chairman, Academic Affairs, NIFFT, RANCHI-834003 on payment of following fee by crossed demand draft payable to "NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY" at State Bank of India, Hatia (Code No 0207) or Canara Bank, Hatia (Code No 0183), alongwith a self addressed envelope of size 28x16 cm stamped for Rs 6/- only, indicating the name of the course applying for. These may also be obtained on cash payment from the institute's cash office on working days between 10.00 AM to 1.00 PM.

### APPLICATION FEE:

- |   |           |                    |
|---|-----------|--------------------|
| 1. B. Tech. (Mfg. Engg.) -              | Rs. 200/- | (Rs.50/-for SC/ST) |
| 2. M.Tech. (Mfg. Engg.) -               | Rs. 60/-  | (Rs.15/-for SC/ST) |
| 3. M.Tech. (Foundry-Forge Tech.) -      | Rs. 60/-  | (Rs.15/-for SC/ST) |
| 4. Advanced Diploma (Fdy/Forge Tech.) - | Rs. 100/- | (Rs.25/-for SC/ST) |

Requests of SC/ST candidates for application form must be accompanied by caste certificate alongwith application fee.

### SCHOLARSHIP:

M.Tech. students (non Sponsored): Rs. 1800/-per month subject to rules.

Advanced Diploma students : Rs. 450/-per month.

Seats are reserved for SC/ST candidates for all the courses as per rules. candidates appearing at the qualifying examination may also apply. However, if selected they will be required to produce the qualifying examination result by the end of September 96.

### LAST DATES:

- |     |   |                   |
|-----|---|-------------------|
| (a) | For B. Tech. & Advanced Diploma Courses : |                   |
|     | Issue of Application form                 | By post : 1-4-96  |
|     | From Institute Counter                    | By hand : 10.4.96 |
|     | Receipt of completed application Form     | 15.4.96           |
| (b) | For M.Tech. courses : The last date       |                   |
|     | for receipt of completed application form | 28.6.96           |

### ENTRANCE EXAMINATIONS AT BOMBAY, DELHI, MADRAS, HYDERABAD, CALCUTTA AND RANCHI

- |   |                       |
|---|-----------------------|
| i. Advanced Diploma (Foundry/Forge Tech.) | on 15.6.96 (SATURDAY) |
| ii. B.Tech. (Manufacturing Engineering)   | on 15.6.96 (SUNDAY)   |

HORA